Schedule No:	
Issues:	• Cost of Service • Rate Design • Weather Normalization • Revenue Synchronization Adjustment • Customer Annualization Adjustment • Loss and Unaccounted for Gas
Witness:	Thomas J.Sullivan
Type of Schedule:	Direct Testimony
Sponsoring Party:	Aquila
Case No:	
Date Testimony To Be Filed:	August 1, 2003

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. _____

DIRECT TESTIMONY

OF

THOMAS J. SULLIVAN

ON BEHALF OF

AQUILA, INC.
d/b/a
AQUILA NETWORKS – MPS
and
AQUILA NETWORKS – L&P

Kansas City, Missouri
August, 2003

State of Kansas)
) ss
County of Johnson)

AFFIDAVIT OF THOMAS J. SULLIVAN

Thomas J. Sullivan, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony and schedules entitled "Direct Testimony of Thomas J. Sullivan"; that said testimony was prepared by him and/or under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge, information, and belief.

Thomas J. Sullivan

Subscribed and sworn to before me this 18th day of July, 2003.

Grace B. Hartman
Notary Public

OFFICIAL SEAL
GRACE B. HARTMAN
MY COMMISSION EXPIRES
March 24, 2006

My Commission expires:

March 24, 2006

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DIRECT TESTIMONY OF THOMAS J. SULLIVAN

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. Thomas J. Sullivan, 11401 Lamar, Overland Park, Kansas 66211.

Q. WHAT IS YOUR OCCUPATION?

A. I am a Principal Consultant in the Enterprise Consulting Division of Black & Veatch Corporation.

Q. HOW LONG HAVE YOU BEEN WITH BLACK & VEATCH?

A. I have been employed with the firm since 1980.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I received a Bachelor of Science Degree in Civil Engineering Summa Cum Laude from the University of Missouri - Rolla in 1980 and a Master of Business Administration Degree in Business Administration from the University of Missouri - Kansas City in 1985.

Q. ARE YOU A REGISTERED PROFESSIONAL ENGINEER?

A. Yes, I am a Registered Professional Engineer in the State of Missouri.

Q. TO WHAT PROFESSIONAL ORGANIZATIONS DO YOU BELONG?

A. I am a member of the American Society of Civil Engineers.

Q. WHAT IS YOUR PROFESSIONAL EXPERIENCE?

A. As a Principal Consultant, Project Manager, and Project Engineer in the Enterprise Consulting Division of Black & Veatch, I have been responsible for the preparation of numerous studies for gas, electric, water, and wastewater utilities. Clients served include investor owned and publicly owned utilities and their customers. My responsibilities have included the preparation of

studies involving valuation and depreciation, cost of service, cost allocation, rate design, cost of capital, supply analysis, load forecasting, economic and financial feasibility, cost of gas and electricity recovery mechanisms, and other engineering and economic matters.

Prior to joining the Enterprising Consulting Division in 1982, I worked as a staff engineer in the firm's Power and Civil-Environmental Divisions.

Q. PLEASE DESCRIBE THE FIRM OF BLACK & VEATCH.

A. Black & Veatch Corporation has provided comprehensive construction, engineering, and management services to utility, industrial, and governmental clients since 1915. The Corporation specializes in engineering and construction associated with utility services including electric, gas, water, wastewater, telecommunications, and waste disposal. Service engagements consist principally of investigations and reports, design and construction, feasibility analyses, rate and financial reports, appraisals, reports on operations, management studies, and general consulting services. Present engagements include work throughout the United States and numerous foreign countries. Including personnel assigned to affiliated companies, we have a staff of approximately 7,000 people.

Q. HAVE YOU PREVIOUSLY APPEARED AS AN EXPERT WITNESS?

A. Yes. I filed expert witness testimony on behalf of Missouri Gas Energy (a division of Southern Union Company) in Case No. GR-2001-292 before the Missouri Public Service Commission. My testimony in that matter addressed the Company's depreciation rates and net salvage allowances. A complete

listing of the cases where I have filed expert witness testimony are listed in Schedule TJS-1.

Q. FOR WHOM ARE YOU TESTIFYING IN THIS MATTER?

A. I am testifying on behalf of Aquila, Inc. d/b/a Aquila Networks - MPS and Aquila Networks – L&P ("Aquila" or "Company").

Q. WHAT ISSUES WILL YOU ADDRESS IN YOUR PREPARED DIRECT TESTIMONY?

A. I will sponsor the Company's proposed:

1. Weather normalization adjustment.
2. Revenue synchronization adjustment.
3. Customer annualization adjustment.
4. Loss and unaccounted for gas ("L&U").
5. Class cost of service study.
6. Rates and rate design.

For all six of these items, I will sponsor separate analyses and schedules for Aquila Networks – MPS (the former Missouri Public Service division) and Aquila Networks – L&P (the former St. Joseph Light and Power Company).

Q. DO YOU SPONSOR ANY SCHEDULES WITH YOUR TESTIMONY?

A. Yes, I do:

Schedule TJS-1 Expert Witness Testimony of Thomas J. Sullivan

Schedule TJS-2 Weather Normalization Statistical Results - MPS

Schedule TJS-3 Calculation of Weather Normalization Adjustment – MPS

Schedule TJS-4 Weather Normalization Statistical Results – L&P

Schedule TJS-5 Calculation of Weather Normalization Adjustment – L&P

Schedule TJS-6 Adjusted Volumes Compared to Weather Variation from Normal - MPS

Schedule TJS-7 Adjusted Volumes Compared to Weather Variation from Normal – L&P

Schedule TJS-8 Revenue Synchronization Adjustment – Revenues Under Existing Rates – MPS

Schedule TJS-9 Revenue Synchronization Adjustment – Revenues Under Existing Rates – L&P

Schedule TJS-10 Customer Annualization Adjustment – MPS

Schedule TJS-11 Customer Annualization Adjustment – L&P

Schedule TJS-12 Loss and Unaccounted for Gas – MPS

Schedule TJS-13 Loss and Unaccounted for Gas – L&P

Schedule TJS-14 Class Cost of Service Study – MPS

Schedule TJS-15 Functionally Classified Cost of Service by Class – MPS

Schedule TJS-16 Class Cost of Service Study – L&P

Schedule TJS-17 Functionally Classified Cost of Service by Class – L&P

Schedule TJS-18 Proposed Rates – MPS

Schedule TJS-19 Revenues Under Proposed Rates - MPS

Schedule TJS-20 Proposed Rates – L&P

Schedule TJS-21 Revenues Under Proposed Rates – L&P

All of these schedules were either prepared by me or under my direct supervision.

Q. ARE THERE ANY SIGNIFICANT DIFFERENCES IN THE METHODOLOGY YOU USE TO DETERMINE THE WEATHER NORMALIZATION, REVENUE SYNCHRONIZATION, AND CUSTOMER ANNUALIZATION ADJUSTMENTS; LOSS AND UNACCOUNTED FOR GAS; AND COST OF SERVICE STUDIES FOR THE MPS AND L&P SYSTEMS?

A. No, there are not. While I have prepared separate and distinct adjustments and analyses for the MPS and L&P systems, the format and approaches used in the analyses and schedules I prepare for MPS and L&P are the same with the exception of rate design. Therefore, the discussions of the approach I use apply to both MPS and L&P except as noted. The differences in rate design are discussed in that section of my direct testimony.

Weather Normalization Adjustment

Q. WERE WEATHER CONDITIONS IN THE COMPANY'S MISSOURI SERVICE TERRITORY NORMAL DURING THE TEST YEAR ENDED DECEMBER 31, 2002?

A. No, they were not. Heating degree-days from the weather stations that I relied upon in my analysis varied from 3.7 to 10.8 percent warmer than normal for the 13-month period ending December 2002.

Q. IN YOUR OPINION, DID WEATHER CONDITIONS VARY ENOUGH FROM NORMAL TO WARRANT ADJUSTING SALES?

A. Yes, they did.

Q. PLEASE DESCRIBE THE RATIONALE FOR ADJUSTING VOLUMES TO REFLECT NORMAL WEATHER CONDITIONS.

A. Because proposed rates are based on test year volumes, test year volumes should be adjusted to reflect sales that would have been expected in an otherwise "normal" (typical) year. If rates are based upon volume levels that are inflated due to colder than normal conditions, the rates will be set too low and may cause an underrecovery of costs during periods of normal conditions. Similarly, if rates are based upon volumes that are too low due to warmer than normal conditions, the rates will be set too high and will more than likely overrecover costs. The most reasonable basis on which to set rates is on normal conditions. Over the long term, this eliminates a bias which may be introduced by using volume levels that are higher or lower than what would normally be expected. Thus, it is necessary to apply a weather

adjustment to actual sales to recognize what volumes would have been if conditions were normal.

Q. PLEASE OUTLINE YOUR PREPARED DIRECT TESTIMONY CONCERNING WEATHER NORMALIZATION.

A. I will:

1) Describe the methodology used to determine the relationship between volumes and weather.

2) Describe the weather stations and weather data used in the analyses.

3) Describe the analyses used to adjust volumes to reflect normal weather conditions.

4) Describe the results of the heating adjustment analyses.

Q. PLEASE SUMMARIZE THE METHODOLOGY YOU USE TO DETERMINE THE RELATIONSHIP BETWEEN SALES VOLUMES AND WEATHER.

A. I use multiple linear regression analysis to define the relationship between sales and variables that represent weather conditions. I use regression in order to predict the value of a dependent variable (such as use per customer) using multiple independent variables (such as heating degree-days). In this regard, the goal is to explain the dependent variable with reasonable accuracy using as few independent variables as possible.

Multiple linear regression yields an equation of the form:

$$Y = B + A_1X_1 + A_2X_2 + \ldots + A_KX_K$$

where

Y		is the dependent variable
$X_1...X_K$		are the independent variables
B		is the y-intercept (or constant)
$A_1...A_K$		are the regression coefficients

With respect to my use of multiple linear regression as a tool in developing adjustments to reflect normal weather conditions, the dependent variable (Y) is monthly use per customer, and I calculate it by dividing monthly volumes by monthly number of customers. I use monthly use per customer as the dependent variable instead of total monthly volumes because the per customer basis reduces the effect of changes in number of customers (particularly on a seasonal basis) or monthly deliveries. Independent variables ($X_1...X_K$) are typically weather variables such as heating degree-days. The intercept (B) is a monthly constant. The constant represents the average customer use that is not affected by the independent variables. This non-weather sensitive use is generally referred to as base use. The coefficients ($A_1...A_K$) are developed from the regression analysis based on the best fit (least squares), i.e. those coefficient values that best predict actual use.

Several statistics can be calculated in connection with a regression analysis to assist in the evaluation of the significance (degree to which the independent variables explain the dependent variable) of an analysis. In my analysis, I focus on the coefficient of determination (R-squared), F statistic,

and the significance of F in my evaluation of the significance of alternative regression analysis results.

Q. WHAT RATE SCHEDULES DO YOU PROPOSE TO ADJUST?

A. I propose to adjust sales under those rate schedules that demonstrate use that is sensitive to changes in winter temperature conditions. Customers served under these rate schedules typically use natural gas for space heating. Variation in monthly heating degree-days typically explains most of the variation in sales to customers who use gas in space heating applications. I am proposing no weather adjustment to rate schedules where usage does not reflect a strong correlation with heating degree-days. Typically, these customers use natural gas for purposes other than space heating.

For MPS, the rate schedules I adjust are the following:

Residential (MO001, MO002, MO003)

General Service (MO051, MO052, MO053)

Large Volume Transportation (MO501, MO502, MO503)

Special Contract Customers (MO522, MO523, MO524, MO530, MO531, MO533)

For L&P, the rate schedules I adjust are the following:

Residential General (MO004, MO005)

General Service (MO054, MO055)

Commercial Large Volume Firm (MO284)

Q. WHAT VARIABLES DID YOU DETERMINE BEST EXPLAIN THE VARIATION IN HEAT SENSITIVE SALES AND WHAT IS THE BASIS FOR YOUR RECOMMENDATION REGARDING THESE VARIABLES?

A. The correlation between heating degree-days and sales to space heating customers is quite high. Heating degree-days (HDD) are typically used as a basis to predict a customer's natural gas space heating requirement. The results of my analyses in this case confirm this fact.

A heating degree-day is defined as 65 degrees less average daily temperature where average daily temperature equals the average of the high and low temperatures on each day. Sixty-five degrees is typically used as the base temperature. If the average daily temperature exceeds 65 degrees, the HDD for that day is set equal to zero. The sum of the daily heating degree-days for a particular month is the monthly heating degree-days.

In my regression analyses, I include current and previous month's heating degree-days as well as a trend factor as independent variables. Because sales are based on the reading of a customer's meter which lags the customer's actual usage and the reading of meters for most customers is done on a cycle that does not correspond to a calendar month, heating degree-days for the previous month are included as a variable. The trend factor recognizes a long run change in use per customer that is not attributable to changes in weather conditions (due to factors such as conservation or changes in typical home size).

I have found that the use of the current month's and prior month's heating degree-days as independent variables to explain variation in monthly use per customer produces results comparable to using billing cycle data (use per customer) and billing cycle heating degree-days. As will be discussed later in my testimony, I perform my statistical analyses over multiple years. Use of cycle billing data over multiple years is generally not practical.

Q. PLEASE DESCRIBE THE WEATHER DATA YOU UTILIZE.

A. I use monthly actual heating degree-day data published by the National Oceanographic and Atmospheric Administration (NOAA) for the following 11 weather stations for the MPS system: Clinton, Kansas City (KCI), Lexington, Marshall, Nevada, Sedalia, Brookfield, Chillicothe, Salisbury, Spickard, and Rolla; and for the L&P system, Maryville.

The Company maintains sales data by town and I assigned each town to a weather station comparable to what has been done by the Staff in MPS' and L&P's last rate cases.

Q. WHAT IS THE SOURCE OF THE DATA YOU USE FOR NORMAL HEATING DEGREE-DAYS?

A. The monthly normals I use for each weather station are equal to the thirty year normals published by NOAA for the period 1971-2000.

Q. WHAT SALES AND CUSTOMER DATA DO YOU USE?

A. At my request, the Company provided monthly sales and number of customers for each rate schedule and town for the years 1995 through 2002.

My goal is to use a sufficiently long period of time such that the average heating-degree days over that period are approximately equal to normal.

Q. WHY DO YOU WANT TO PERFORM YOUR ANALYSES OVER A PERIOD OF TIME THAT RELECTS NORMAL WEATHER CONDITIONS?

A. In connection with the numerous studies that I have made over the years, I have observed several anomalies. One of these anomalies is that for a specific customer class, the relationship between sales and heating degree-days can appear to change substantially from year to year. In studying this question, I found that significant changes in the relationship generally correspond to years where weather conditions are more abnormal. I therefore prefer to examine conditions over a more extended period in order to insure that any weather adjustment I make truly reflects normal usage characteristics.

Q. PLEASE DESCRIBE YOUR REGRESSION RESULTS.

A. In order to identify anomalies in usage patterns over the 8-year period for which I have sales data, I performed regression analyses in decreasing blocks of time (1995-2002, 1996-2002, 1997-2002, etc.) for each rate schedule. In Schedule TJS-2, I summarize the results of each regression analysis for the MPS system and in Schedule TJS-4 for the L&P system. I evaluated the results of each of these time periods using five criteria to determine which period should be used as the basis to calculate my proposed adjustment. These five criteria are:

1. Consistency of predicted normal use per customer.

2. Average annual HDDs for the period evaluated being near normal.

3. R squared – values in the high 90 percent range are common for residential and small commercial customer classes.

4. F statistic – higher values equate to higher level of significance.

5. Obvious changes in database as reflected in coefficients and statistics.

For the residential and commercial general service customers on both the MPS and L&P systems, criteria 1, 3, and 4 were very consistent for most of the time periods analyzed, and since weather conditions over the 8-year period 1995-2002 for each weather station were generally the closest to the 30-year NOAA normals, I used the 8-year analyses as the basis for my recommended adjustment for these two classes.

For the industrial firm, large volume transportation, and special contract customers, no one time period consistently met the criteria for all the weather stations and customer classes, primarily due to the small number of customers in these classes, the entry and exit of customers over the time period, and large changes in use per customer (not likely attributable to changes in weather conditions). Therefore, I evaluated each weather station and customer class separately to determine which time period best satisfied the criteria.

Q. HOW DID YOU DETERMINE THE HEATING VOLUME ADJUSTMENTS?

A. These calculations are summarized in Schedule TJS-3 for the MPS system and Schedule TJS-5 for the L&P system. The heating adjustment per customer is the difference between normal and actual HDDs multiplied by its respective coefficients (current and prior months) for each month of the test year. Using coefficients from Schedules TJS-2 and TJS-4 and the NOAA HDD data, the heating adjustments per customer are determined.

After the monthly heating adjustment per customer (Mcf/customer) is calculated, I multiply each of these figures by the respective number of customers for each month to determine the total volumetric adjustment. As shown in Column K of Schedules TJS-3 and TJS-5, my recommended heating adjustments are an increase in test year sales of 261,937 Mcf for the MPS system and an increase in test year sales of 34,374 Mcf for the L&P system.

Q. HOW DOES THIS ADJUSTMENT COMPARE WITH THE DIFFERENCE IN NORMAL HEATING DEGREE-DAYS DISCUSSED EARLIER?

A. In Schedules TJS-6 and TJS-7, I compare adjusted volumes as a percent of total volumes to the variation of heating degree-days from normal for the MPS and L&P systems, respectively. As shown in Schedules TJS-6 and TJS-7, the percent adjustment is comparable to the actual HDD deviation from normal.

Q. HOW DO YOU DETERMINE THE REVENUE AND COST OF GAS ADJUSTMENTS FOR EACH OF THE RATE SCHEDULES YOU ADJUSTED?

A. The margin adjustments are equal to the margin rate (excluding gas cost) times the sales adjustment. The margin adjustments are shown in Column M of Schedules TJS-3 and TJS-5 and are calculated by multiplying Column K by Column L. As shown in Schedules TJS-3 and TJS-5, the total margin adjustments amount to an increase in test year margin for the MPS system of $488,989 and for the L&P system of $52,524.

The adjustments to cost of gas are also shown in Schedules TJS-3 and TJS-5. These adjustments, shown in Column O, are the product of Columns K and N. As shown in Column O of Schedule TJS-3, this adjustment results in an increase in test year cost of gas (and in revenues from cost of gas) of $1,419,662 for the MPS system, and as shown in Schedule TJS-5, and increase in test year cost of gas of $172,994 for L&P system. The total revenue adjustment (Column P) is equal to the sum of the margin adjustment (Column M) plus the cost of gas adjustment (Column O). The total revenue adjustment for the MPS system (shown in Schedule TJS-3) is an increase in test year revenues of $1,908,651, and for the L&P system (shown in Schedule TJS-5) is an increase in test year revenues of $225,518.

Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY REGARDING YOUR PROPOSED WEATHER NORMALIZATION ADJUSTMENTS?

A. Yes, it does.

Revenue Synchronization Adjustment

Q. PLEASE EXPLAIN THE REVENUE SYNCHRONIZATION ADJUSTMENT YOU ARE PROPOSING.

A. The adjustment I am proposing simply synchronizes test year revenues with per books billing units and test year gas costs. The revenue synchronization adjustment includes two principal components:

1. Synchronize sales margin.
2. Synchronize transportation margin.

Q. WHY ARE YOU PROPOSING TO SYNCHRONIZE SALES AND TRANSPORTATION MARGINS?

A. The primary reason is to provide an appropriate basis upon which to compare revenues under existing and proposed rates. The revenue synchronization adjustment I am proposing results in test year revenues that are equal to test year billing units times the applicable existing rates. I can therefore take the same test year billing units times the proposed rates and accurately measure the revenue impact of the rates I am proposing in this matter.

Q. HAVE YOU PREPARED ANY SCHEDULES SHOWING HOW THESE ADJUSTMENTS ARE CALCULATED?

A. Yes, the detailed calculations of these adjustments are shown in Schedules TJS-8 and TJS-9. As shown on Page 1 of Schedule TJS-8, the revenue synchronization adjustment to MPS sales margin increases test year sales margin by $70,891. The revenue synchronization adjustment to transportation margin shown on Page 2 of Schedule TJS-8 decreases MPS

test year transportation margin by $14,665. As shown on Page 1 of Schedule TJS-9, the revenue synchronization adjustment to L&P sales margin increases test year sales margin by $30,595. As shown on Page 2 of Schedule TJS-9, the revenue synchronization adjustment to transportation margin decreases test year L&P transportation margin by $3,707.

Q. HOW DO SCHEDULES TJS-8 AND TJS-9 RELATE TO YOUR PROPOSED WEATHER NORMALIZATION ADJUSTMENT, CUSTOMER ANNUALIZATION ADJUSTMENT, CLASS COST OF SERVICE STUDY, AND RATE DESIGN?

A. The revenues, cost of gas, and units of service (number of customers and volumes) contained in Schedules TJS-8 and TJS-9 represent test year figures. I add my proposed weather adjustments and customer annualization adjustments to revenues, cost of gas, and sales volumes after reflecting the synchronization adjustment to arrive at test year revenues under existing rates summarized in Schedules TJS-19 and TJS-21, Column R.

Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY REGARDING YOUR PROPOSED REVENUE SYNCHRONIZATION ADJUSTMENT?

A. Yes, it does.

Customer Annualization Adjustment

Q. PLEASE EXPLAIN THE CUSTOMER ANNUALIZATION ADJUSTMENT YOU ARE PROPOSING.

A. The adjustment I am proposing adjusts the number of customers to reflect the average number of customers that I project to be served during the 12 month period immediately preceding the date the rates are expected to go into effect. The net adjustment to number of customers is then multiplied by the weather normalized use per customer for the test year ended December 31, 2002 to determine the volumetric adjustment. The net number of customers and volumes are then multiplied by the appropriate customer and volumetric charges (margin and cost of gas) to determine the revenue (and cost of gas) adjustments due to annualization of customers.

Q. TO WHAT DATE DO YOU ANNUALIZE THE NUMBER OF CUSTOMERS?

A. I annualize the number of customers to the 12 month period ended September 30, 2003. The actual date that is ultimately used will be based on the date determined by the Commission for the true-up phase of the rate case.

Q. PLEASE OUTLINE THE APPROACH YOU USE TO ANNUALIZE THE NUMBER OF CUSTOMERS TO SEPTEMBER 30, 2003.

A. Using the historical monthly database of customers for the period 1995-2002, I project monthly number of customers by weather station for the residential and general service classes through December 2003 using seasonal decomposition to capture the effect of customer seasonality. I then averaged

the number of customers for the year ending September 2003. The difference between the average number of customers at September 2003 and December 2002 (per books) is the annualization adjustment. I did not make an annualization adjustment to large volume or transportation customers.

Q. HAVE YOU PREPARED SCHEDULES SHOWING HOW THE ADJUSTMENTS TO NUMBER OF CUSTOMERS ARE CALCULATED?

A. Yes, the detailed analyses are show in Schedules TJS-10 and TJS-11.

Q. PLEASE SUMMARIZE THE CUSTOMER ADJUSTMENTS YOU ARE PROPOSING.

A. The customer adjustment to MPS increases the test year number of customers by 202 customers. The customer adjustment to L&P decreases the test year number of customers by 15 customers. These adjustments are shown in Column I of Schedules TJS-10 and TJS-11, respectively.

Q. PLEASE DISCUSS HOW YOU DETERMINED THE VOLUMETRIC ADJUSTMENTS ASSOCIATED WITH THE NUMBER OF CUSTOMER ADJUSTMENTS.

A. The volumetric adjustment associated with the customer annualization adjustment is calculated by multiplying the weather normalized use per customer shown in Column H by the customer adjustment shown in Column I of Schedules TJS-10 and TJS-11. The volumetric adjustment to MPS increases test year throughput by 19,807 Mcf. The volumetric adjustment to L&P decreases test year throughput by 1,060 Mcf.

Q. PLEASE DISCUSS HOW YOU DETERMINED THE MARGIN AND COST OF GAS ADJUSTMENTS RELATED TO THE CUSTOMER ANNUALIZATION ADJUSTMENT.

A. The margin adjustment is determined by multiplying the customer adjustment times the respective customer charge plus the volumetric adjustment times the respective distribution charge. The cost of gas adjustment is determined by multiplying the volumetric adjustment times the average unit cost of gas. The annualization adjustment to MPS increases test year revenue by $207,506. The annualization adjustment to L&P decreases test year revenue by $8,214.

Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY REGARDING YOUR PROPOSED CUSTOMER ANNUALIZATION ADJUSTMENT?

A. Yes, it does.

Loss and Unaccounted For Gas

Q. WHY ARE YOU ADDRESSING LOSS AND UNACCOUNTED FOR GAS IN YOUR TESTIMONY?

A. According to Section 5.02 Measurement of Gas of MPS' Rules and Regulations, "...lost and unaccounted for factors should be maintained for informational purposes, and used to develop reasonable lost and unaccounted for percentages in the next Missouri Public Service rate case."

Q. HAVE YOU PERFORMED AN ANALYSIS OF THE COMPANY'S LOSS AND UNACCOUNTED FOR GAS?

A. Yes, I have. It is contained in Schedules TJS-12 and TJS-13 for the MPS and L&P systems, respectively.

Q. PLEASE DESCRIBE THE CONTENTS OF THESE SCHEDULES.

A. Schedule TJS-12 summarizes monthly purchases and billed sales for the MPS Southern, Northern, and Eastern systems for the 5-year period ending August 2002. Schedule TJS-13 summarizes monthly purchases and billed sales for the L&P system for the 12 month period ending August 2002. Ideally, I prefer at least five years of data to review trends in lost and unaccounted. For the MPS system, five years of data was available. For the L&P system, only one year was available for review.

Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY REGARDING LOSS AND UNACCOUNTED FOR GAS?

A. Yes, it does.

Class Cost of Service Study

Q. HAVE YOU PREPARED A CLASS COST OF SERVICE STUDY FOR AQUILA NETWORKS' MPS AND L&P SYSTEMS OPERATIONS?

A. Yes, I have. Schedules TJS-14 and TJS-16 contain the class cost of service studies for MPS and L&P, respectively. Schedules TJS-15 and TJS-17 contain the functionally classified cost of service by class for MPS and L&P, respectively.

Q. PLEASE BRIEFLY DESCRIBE THE CONTENTS OF SCHEDULES TJS-14 AND TJS-16.

A. Schedules TJS-14 and TJS-16 consist of 9 tables that develop cost of service (revenue requirement) by customer class. Class cost of service at the claimed rate of return is summarized in Table 1. Class rates of return under existing rates are shown in Table 2. Tables 3 and 4 show the allocation of plant, depreciation reserve, and other rate base items to customer classes. Table 5 shows the allocation of income taxes under existing rates to customer classes. Tables 6 and 7 show the allocation of operation and maintenance expenses, depreciation expenses, and taxes other than income taxes to customer classes. Table 8 shows the allocation of other operating revenues to customer classes. Table 9 shows the allocation factors used in the class cost of service study.

Q. HOW HAVE THE CLASSES BEEN DEFINED FOR PURPOSES OF THE COST OF SERVICE STUDY?

A. The customer classes I use in my class cost of service studies for each system generally follow the rate schedules under which the Company currently provides service. For the MPS system, the sales classes have been defined as Residential, General Service, and Large Volume. The transportation classes have been defined as Small Volume and Large Volume.

For the L&P system, the sales classes have been defined as Residential, General Service, and Large Volume Sales. There is only one transportation class, Large Volume.

Q. PLEASE DISCUSS THE PRINCIPAL ALLOCATIONS USED IN YOUR CLASS COST OF SERVICE STUDY.

A. The allocation bases used to allocate costs are identified on each line in Column (J) of Schedule TJS-14 and Column (I) of Schedule TJS-16. There are generally two types of allocation bases contained in my class cost of service study. There are internal allocation bases which include allocations where a cost item is allocated based on the results of the allocation of other cost items. For example, property taxes are allocated based on total plant in service less intangible plant. The second type of allocation bases is summarized in Table 9 of Schedules TJS-14 and TJS-16. These allocation bases represent either relative service characteristics of the various customer classes or relative costs of performing customer accounting functions.

Q. PLEASE DISCUSS EACH OF THE ALLOCATION BASES DEVELOPED IN TABLE 9.

A. There are six allocation bases developed in Table 9.

Throughput. This allocator is equal to the fully adjusted test year annual throughput (sales and transportation) associated with each customer class. This allocation basis is used to allocate costs that vary with annual volumes. This throughput allocator may also be referred to as a commodity allocator.

Sales. This allocator is equal to the fully adjusted test year sales associated with each sales customer class. This allocation basis is used to allocate costs that vary with annual purchased volumes.

Peak Day. This allocator is equal to the estimated peak day requirements for each customer class. This allocation basis is used to allocate costs that vary with the level of peak demand. This peak day allocator may also be referred to as a capacity allocator.

Services. This allocator is based on average number of customers weighted by the relative investment in services related costs (Account 380) for each customer class. This allocation basis is used to allocate services related costs. This allocation basis is also used for the customer component of mains related costs discussed later in my testimony.

Meters and Regulators. This allocator is based on the average number of customers weighted by the relative investment in meters

and regulators costs (Accounts 381 through 385) for each customer class. This allocation basis is used to allocate meters and regulators related costs.

Customer Accounts. This allocator is based on the number of bills weighted by the relative cost of customer accounting functions (meter reading, billing, customer accounting, etc.) for each customer class. This allocation basis is used to allocate costs related to billing and servicing customer accounts.

Q. PLEASE DISCUSS HOW YOU DETERMINED YOUR PEAK DAY REQUIREMENTS USED IN YOUR PEAK DAY ALLOCATION BASIS.

A. For the residential and general service classes, I calculated an estimated peak day load factor (average annual use divided by peak day use) based on the peak day requirements per customer. Peak day requirements are estimated by my use of regression results and peak heating degree-day. The peak heating degree-day for each weather station was determined by subtracting the coldest daily mean temperature during the 1971-2000 period from a base of 65 degrees. Annual throughput divided by 365 days divided by the load factor equals peak day requirements.

For MPS large volume and transportation customer classes, I estimated peak day load factor by summing their billed peak daily demands based on January 2002 for each customer and dividing it by average annual daily demand. Since billing peak demands were not available for L&P large volume and transportation customer classes, I computed peak day as 1/20th

of the January 2002 monthly volumes, which is consistent with MPS' existing tariff for the determination of billing demand.

Q. WHAT IS THE BASIS FOR YOUR ALLOCATION OF TRANSMISSION AND DISTRIBUTION MAINS?

A. The allocation of transmission and distribution mains that I use is based on a detailed study of the Company's investment and the relative capacity of the MPS and L&P facilities comparable to studies I have conducted in other Aquila jurisdictions. With regard to the MPS transmission mains related investment, I allocate 50 percent on the basis of peak demand and 50 percent on the basis of throughput. L&P has no transmission investment. With regard to distribution mains related investment on the MPS system, I allocate 45.4 percent on the basis of peak demand, 53.8 on the basis of services, and 0.8 percent on the basis of throughput. On the L&P system, I allocate 57.8 percent on the basis of peak demand, 28.4 on the basis of services, and 13.8 percent on the basis of throughput. The detailed analyses used to develop these allocations are in my filed workpapers.

Q. PLEASE EXPLAIN SCHEDULES TJS-15 AND TJS-17.

A. Schedules TJS-15 and TJS-17 develop functionally classified cost of service by customer class. The same costs and allocation bases that are used in Schedules TJS-15 and TJS-17 are used in Schedules TJS-14 and TJS-16; however, the cost of service is calculated in Schedules TJS-15 and TJS-17 so that the cost of each unbundled service provided by MPS and L&P can be

determined for each customer class. Schedules TJS-15 and TJS-17 can generally be referred to as unbundled cost of service studies.

The structure of Schedules TJS-15 and TJS-17 is similar to Schedules TJS-14 and TJS-16 except the cost of each cost function is determined first and then these functionalized costs are allocated to customer classes.

Q. PLEASE DEFINE THE COST FUNCTIONS USED IN SCHEDULES TJS-15 AND TJS-17.

A. The cost functions used in Schedules TJS-15 and TJS-17 generally parallel the allocation bases discussed in connection with Schedules TJS-14 and TJS-16 and include the following:

Commodity – costs that vary with the throughput of the system

Sales – costs that vary with the volume of gas sold

Transmission/Distribution – split between commodity, capacity, and customer related costs

Services – services (Account 380) related costs

Meters and Regulators – meters and regulators (Accounts 381-385) related functions

Customer Accounting – split between meter reading, customer accounting and other customer accounting related costs

Q. PLEASE INDICATE WHERE THE PRINCIPAL FINDINGS OF THE FUNCTIONALLY CLASSIFIED CLASS COST OF SERVICE STUDIES ARE SUMMARIZED.

A. The results of the unbundled cost of service studies are summarized in Table 9 of Schedules TJS-15 and TJS-17. This table shows not only the cost of providing each service to each customer class but also the unit cost of these services by customer class. These unit costs form another basis upon which to assess the existing and proposed customer charges and energy rates for each of the customer classes.

Q. DOES THIS COMPLETE YOUR PREPARED DIRECT TESTIMONY WITH REGARD TO YOUR CLASS COST OF SERVICE STUDY?

A. Yes, it does.

Proposed Rates

<u>General Guidelines</u>

Q. WHAT GENERAL GUIDELINES DID YOU FOLLOW IN THE DESIGN OF PROPOSED RATES?

A. I followed two broad guidelines in designing the rates I am proposing for MPS and L&P:

1) Modify existing rate structures so that the basic rate structures are the same for MPS and L&P.

2) Establish the rates for MPS and L&P separately based on the revenue requirements and class cost of service studies applicable to each.

Q. WHY ARE YOU PROPOSING THAT THE RATE STRUCTURES FOR THE MPS AND L&P SYSTEMS BE THE SAME?

A. In the short run, it simplifies administration of the rates. In addition, the structural changes I am recommending primarily impact the MPS system and are intended to move the structure in a direction that more closely reflects the rate structures that I am familiar with in the industry, in the other jurisdictions in which Aquila operates, and in Missouri for the other utilities regulated by the Commission. The L&P rate structure for the most part already meets these goals. In the longer run, if the relative cost structures change and/or the Commission determines that the same rates should be charged for all Aquila customers in the State of Missouri, having comparable structures already in place will simplify this transition.

Q. WHY ARE YOU PROPOSING TO BASE THE MPS AND L&P RATES ON THEIR SEPARATE REVENUE REQUIREMENTS AND CLASS COST OF SERVICES STUDIES?

A. It is my understanding that the Commission has orally communicated with the Company to provide separate revenue requirements and rates for each system.

Q. WHAT ARE THE MODIFICATIONS YOU ARE PROPOSING TO THE RATE STRUCTURES?

A. I am recommending the following changes to the MPS and L&P rate structures:

1) Eliminate the energy charge block rates on the MPS General Service rate.
2) Establish a Small Volume Firm sales rate for both MPS and L&P.
3) Eliminate the energy charge block rates on the MPS Large Volume sales and transportation rates and lower the availability threshold for the Large Volume rate.
4) Eliminate the energy charge block rates on the MPS Small Volume Transportation Rate and have this rate parallel the new Small Volume Firm sales rate.

Q. WHY ARE YOU PROPOSING TO ELIMINATE THE ENERGY CHARGE BLOCK RATES IN THE EXISTING MPS GENERAL SERVICE, LARGE VOLUME, AND SMALL VOLUME TRANSPORTATION RATES?

A. There are five primary reasons I am making this recommendation. First, the existing L&P rate structure does not include any block rates. Second, based

on my experience, the trend in establishing natural gas rates has been away from block rates. This is particularly true in the other jurisdictions where the Company provides natural gas service. Third, one of the rationales for block rates has historically been to recover customer related costs not recovered in a customer charge in a first rate block. Based on the trend in Missouri to establish customer charges for natural gas service that more closely match customer related costs, there is no need to establish a first block to collect these costs. Fourth, another rationale for block rates is to establish one rate that can be used to serve a fairly heterogeneous class of customers. For cost of service and rate administrative purposes, I believe that it is preferable to establish rates and cost of service analyses using groups of customers that are more homogeneous with regards to size and load characteristics. Finally, a flat energy charge is much easier for customers to understand and for the Company to administer.

Q. IS THERE ANOTHER MORE SPECIFIC CONCERN WITH THE EXISTING MPS BLOCK RATE STRUCTURE?

A. Yes. The change to the last block in all cases is very large. For example, the first three blocks of the existing General Service and Small Volume Transportation rates decline from $0.24008 per Ccf to $0.22208 per Ccf to $0.20405 per Ccf and then the fourth block drops to $0.07546 per Ccf (a decline of 63 percent). A similar decline occurs on the Large Volume Firm, Interruptible, and Transportation rates where the decline is from $0.02460 per

Ccf to $0.0100 per Ccf (a decline of 60 percent). A customer whose usage straddles these thresholds is given very conflicting price signals.

Q. HOW ARE YOU RECOMMENDING TO RESTRUCTURE THE EXISTING GENERAL SERVICE RATE?

A. I am recommending the existing General Service rate be restructured as Small Commercial and Small Volume rates and that the larger customers be transferred to the Large Volume rate.

Q. WHY ARE YOU PROPOSING A SMALL VOLUME RATE AND A REDUCTION IN THE THRESHOLD FOR THE LARGE VOLUME RATES?

A. These recommendations are made in conjunction with my recommendation to eliminate the energy charge block rates on the existing General Service rate. My analysis indicates that the existing General Service rate serves customers ranging in size from a residential customer all the way up to just below the current threshold for the existing Large Volume rate. It would not be reasonable to charge these customers the same flat energy charge. First, the cost of service is not the same. Second, some individual customers would see a significant rate decrease, while others would see a disproportionate rate increase.

Q. WHAT THRESHOLDS ARE YOU RECOMMENDING WITH REGARDS TO THE SMALL COMMERCIAL, SMALL VOLUME, AND LARGE VOLUME RATES?

A. I am recommending that the Small Commercial rate apply to customers whose annual usage is less than 5,000 Ccf and that the Large Volume rate

apply to customers whose annual usage is greater than 40,000 Ccf (compared to the existing threshold of 60,000 Ccf per year). Therefore, the Small Volume rate would apply to customers whose annual usage is between 5,000 Ccf and 40,000 Ccf.

Q. ON WHAT BASIS DID YOU ESTABLISH THESE THRESHOLDS?

A. There were four criteria I used in establishing these thresholds. First, I examined all the bills of the customers served under the existing General Service rates for MPS and L&P and created a frequency distribution showing how many customers fell into various annual consumption blocks. This type of analysis usually indicates concentrations of customers so that cut-off points can be established with less disruption and/or customers straddling the threshold. In this case, there were significant drops in the relative number of customers around the two thresholds: 5,000 Ccf and 40,000 Ccf per year. Second, I considered the thresholds used in other jurisdictions of the Aquila system and those of other utilities in Missouri. The thresholds recommended are comparable to those contained in Aquila tariffs in other jurisdictions and also to those of other Missouri gas utilities. Third, I determined the relationship between customer size (annual usage) and cost of service. This exercise was used primarily in designing the level of rates; however, it does provide valuable information such that thresholds are established that result in classes of customers whose cost characteristics are significantly different enough to warrant different rates. Finally, an additional consideration in establishing the actual level of proposed rates was the differences between

revenues under existing and proposed rates on a customer basis in order to mitigate disruption. In summary, I believe that the thresholds I am recommending provide a good balance between recognizing cost of service, minimizing disruption, and simplifying and standardizing the rate structures.

Q. ARE THERE ANY OTHER SPECIFIC GUIDELINES THAT YOU FOLLOW IN THE DESIGN OF PROPOSED RATES FOR MPS AND L&P?

A. Yes, these guidelines were followed:

1) Customer charges should more directly reflect customer related costs.

2) Margins for comparable sales and transportation services should be the same.

3) Rates should be based on class cost of service to the extent possible.

<u>Proposed Rates - MPS</u>

Q. WHAT IS THE OVERALL INCREASE THAT THE MPS PROPOSED RATES ARE DESIGNED TO PRODUCE?

A. Approximately $5.6 million.

Q. HAVE YOU DESIGNED A SET OF RATES FOR MPS REFLECTING THE GUIDELINES DISCUSSED EARLIER AND THE $5.6 MILLION INCREASE?

A. Yes. In Schedule TJS-18, I summarize the rates I am proposing for MPS. In Schedule TJS-19, I show a detailed calculation of revenues under existing and proposed rates for MPS.

Q. PLEASE DISCUSS YOUR SPECIFIC RATE DESIGN RECOMMENDATIONS FOR THE MPS RESIDENTIAL RATE.

A. I am recommending the Residential customer charge be increased from $9.00 per month to $15.00 per month and the energy charge be increased from $0.22295 per Ccf to $0.26825 per Ccf. The $15.00 per month customer charge is more in line with the customer related costs of $17.84 per bill determined in my class cost of service study. The $0.26825 per Ccf energy charge is the level required with the $15.00 per month customer charge such that the Company earns a rate of return of 9.74 percent on the Residential class, which is the Company's overall requested rate of return.

Q. PLEASE DISCUSS YOUR SPECIFIC RATE DESIGN RECOMMENDATIONS FOR THE REMAINING MPS NON-RESIDENTIAL RATES.

A. The existing General Service customer charge is $15.00 per month. I am recommending that the Small Commercial (usage less than 5,000 Ccf per year) customer charge set at $25.00 per month and the energy charge be set at $0.26200 per Ccf. For the Small Volume customers (Firm and Transportation), I am recommending that the customer charge be set at $50.00 per month and the energy charge be set at $0.19200 per Ccf. For the Large Volume customers (Firm, Interruptible, and Transportation), I am recommending no change to the existing customer charge of $215.00 per month, that the energy charge be increased to $0.03790 per Ccf, and that the demand charge be increased to $0.40000 per Ccf of billing demand per month.

Q. HOW DO THESE PROPOSED CUSTOMER CHARGES COMPARE TO YOUR COST OF SERVICE STUDY?

A. My functionally classified cost of service study (Schedule TJS-15, Table 9, Line 10, Column D) indicates that customer related costs for the Residential class equal $17.84 per month which is significantly greater than the current customer charge of $9.00 per month. An increase from the existing $9.00 per month to the proposed $15.00 per month moves the rate in the direction of actual cost. The customer related costs for the existing General Service class equals $41.26 per month (Line 11) which is significantly greater than the existing $15.00 per month customer charge. I am proposing a $25.00 per month customer charge for the Small Commercial rate and a $50.00 per month customer charge for the Small Volume rate. These customer charges more reasonably reflect cost. The customer related costs for the Large Volume and Transportation classes equals $187.43 per month (Lines 12 through 14). I am recommending no change to the existing customer charge of $215.00 since the customer charge is currently set near its actual cost.

Q. WHAT IS THE BASIS FOR YOUR RECOMMENDED ENERGY CHARGES FOR MPS' NON-RESIDENTIAL CUSTOMERS?

A. The energy charges recognize the relative differences in cost of service of the three groups of customers (Small Commercial, Small Volume, and Large Volume) relative to each other and the Residential class and the overall cost of service of the non-residential customer classes such that the Company earns its requested rate of return of 9.74 percent on this group. Another

consideration in the design of the Small Volume and Large Volume rates was to mitigate the magnitude (either up or down) of the impact of the proposed rates.

Proposed Rates – L&P

Q. WHAT IS THE OVERALL INCREASE THAT THE L&P PROPOSED RATES ARE DESIGNED TO PRODUCE?

A. Approximately $0.8 million.

Q. HAVE YOU DESIGNED A SET OF RATES FOR L&P REFLECTING THE GUIDELINES DISCUSSED EARLIER AND THE $0.8 MILLION INCREASE?

A. Yes. In Schedule TJS-20 I summarize the rates I am proposing for L&P. In Schedule TJS-21 I show a detailed calculation of revenues under existing and proposed rates for L&P.

Q. ARE YOU RECOMMENDING THAT EXISTING LOWER RESIDENTIAL AND GENERAL SERVICE CUSTOMER CHARGES FOR FAIRFAX, ROCKPORT, AND TARKIO BE RETAINED?

A. No, I am not.

Q. PLEASE DISCUSS YOUR SPECIFIC RATE DESIGN RECOMMENDATIONS FOR THE L&P RESIDENTIAL RATE.

A. I am recommending that the Residential customer charge be increased from $6.66 per month ($5.65 per month for Fairfax, Rockport, and Tarkio) to $10.00 per month and the energy charge be increased from $0.16350 to $0.22950 per Ccf. The $10.00 per month customer charge is more in line

with the customer related costs of $13.38 per bill determined in my class cost of service study. The $0.22950 per Ccf energy charge is the level required with the $10.00 per month customer charge such that the Company earns a rate of return of 10.08 percent on the Residential class, which is the Company's overall requested rate of return.

Q. PLEASE DISCUSS YOUR SPECIFIC RATE DESIGN RECOMMENDATIONS FOR THE REMAINING L&P RATES.

A. The existing General Service customer charge is $12.31 per month ($9.39 per month for Fairfax, Rockport, and Tarkio). I am recommending that the Small Commercial (usage less than 5,000 Ccf per year) customer charge be set at $20.00 per month and the energy charge be set at $0.20650 per Ccf. For the Small Volume customers (Firm and Transportation), I am recommending that the customer charge be set at $40.00 per month and the energy charge be set at $0.17150 per Ccf. For the Large Volume customers (Firm, Interruptible, and Transportation), I am recommending a customer charge of $200.00 per month, that the energy charge be set at $0.03500 per Ccf, and that the demand charge be set at $0.40000 per Ccf of billing demand per month.

Generally, these recommendations parallel the rates I am proposing for the MPS system, reflecting the lower relative revenue requirement and lower relative cost of service for L&P. In addition, I am recommending that rates be established for L&P to mirror MPS even though there may not

currently be any customers that would be served under some of the rates for L&P.

The energy charges recognize the relative differences in cost of service of the three groups of customers (Small Commercial, Small Volume, and Large Volume) relative to each other and the Residential class and the overall cost of service of the non-residential customer classes such that the Company earns a rate of return of 10.09 percent on this group, which is very close to the Company's overall requested rate of return of 10.08 percent. Another consideration in the design of the Small Volume and Large Volume rates was to mitigate the magnitude (either up or down) of the impact of the proposed rates.

Q. HOW DO THESE PROPOSED CUSTOMER CHARGES COMPARE TO YOUR COST OF SERVICE STUDY?

A. My functionally classified cost of service study (Schedule TJS-17, Table 9, Line 9, Column D) indicates that customer related costs for the Residential class equal $13.38 per month which is significantly greater than the current customer charge of $6.66 per month ($5.65 per month for Fairfax, Rock Port, and Tarkio). An increase from the existing $6.66 per month to the proposed $10.00 per month moves the rate in the direction of actual cost. The customer related costs for the existing General Service classes equals $35.57 per month (Line 10) which is significantly greater than the existing $12.31 per month customer charge ($9.39 per month for Fairfax, Rock Port, and Tarkio). I am proposing a $20.00 per month customer charge for the Small

Commercial rate and a $40.00 per month customer charge for the Small Volume rate. These customer charges more reasonably reflect cost. The customer related costs for the Large Volume and Transportation classes equal $109.77 and $130.00 per month, respectively, (Lines 11 through 12). Currently, Large Volume customers are charged a $184.53 per month customer charge. In addition to this charge, Transportation customers are being charged $47.25 per month for each meter. I am recommending a slight increase to the customer charge to $200 per month and the elimination of the transportation per meter charge.

Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

A. Yes, it does.

Expert Witness Testimony of Thomas J. Sullivan

- *Peoples Natural Gas Company of South Carolina, South Carolina Public Service Commission Docket No. 88-52-G (1988).* Natural gas utility revenue requirements and rate design.

- *Peoples Natural Gas (UtiliCorp United, Inc.), Iowa Utilities Board Docket No. RPU-92-6 (1992).* Natural gas utility class cost of service study and peak day demand requirements.

- *Peoples Natural Gas (UtiliCorp United, Inc.), Kansas Corporation Commission Docket No. 193,787-U (1996).* Natural gas utility class cost of service study, rate design, and peak day demand requirements.

- *Southern Union Gas Company, Railroad Commission of Texas Gas Utilities Docket No. 8878 (1998).* Natural gas utility depreciation rates.

- *Southern Union Gas Company, City of El Paso (1999).* Natural Gas utility depreciation rates.

- *UtiliCorp United, Inc., Kansas Corporation Commission Docket No. 00-UTCG-336-RTS (1999).* Natural gas utility weather normalization, class cost of service, and rate design.

- *Philadelphia Gas Works, Pennsylvania Public Utility Commission Docket No. R-00006042 (2001).* Natural gas utility revenue requirements.

- *Missouri Gas Energy, Missouri Public Service Commission Docket No. GR-2001-292 (2001).* Natural gas utility depreciation rates.

- *Aquila Networks, Iowa Utilities Board Docket No. RPU-02-5 (2002).* Natural gas utility class cost of service study, rate design, and weather normalization adjustment.

- *Aquila Networks, Michigan Gas Utilities, Michigan Public Service Commission Case No. U-13470 (2002).* Natural gas utility class cost of service study, rate design, and weather normalization adjustment.

- *Aquila Networks, Nebraska Public Service Commission Docket No. NG-0001, NG0002, NG0003 (2003).* Natural gas utility weather normalization adjustment.

Aquila Networks - MPS
Summary of Statistical Results from Heating
Degree Day Regression Analysis

[A] Line No.	[B] Description		[C] 1995-2002	[D] 1996-2002	[E] 1997-2002	[F] 1998-2002	[G] 1999-2002	[H] 2000-2002	[I] 2001-2002	[J] 2002	[K] Comments
	Trend		1,086	942	798	654	510	366	222	78	
1	**Residential General**										
2	Southern System - (MO001)										
3	Weather Station - Clinton										
4	Constant		1.672	1.703	1.583	1.566	1.587	0.609	0.734	0.705	Consistent normal use/customer
5	Current Month's HDD		0.00660	0.00650	0.00639	0.00626	0.00638	0.00567	0.00569	0.00617	R squared value and F are most
6	Previous Month's HDD		0.00697	0.00697	0.00687	0.00680	0.00662	0.00710	0.00695	0.00652	significant in 1995-2002 period
7	Trend		(0.01487)	(0.01787)	(0.01808)	(0.02145)	(0.02881)	-	-	-	1995-2002 period contains both
8	R Squared		0.970	0.968	0.964	0.960	0.950	0.965	0.960	0.923	warmer and colder years
9	F		998,881	636,928	627,606	474,537	378,973	482,944	279,913	67,221	1995-2002 period is relatively
10	Predicted Normal Use/Customer		75.723	74.860	74.745	74.052	73.136	77.307	75.735	75.599	close to normal
11	Average Annual HDD	5,294									
12	Time Period Used		xxxxx								
13	Peak Day	82									
14	Load Factor		18.47%	18.42%	18.62%	18.88%	18.60%	19.73%	19.56%	19.48%	
15	Weather Station - KCI										
16	Constant		2.081	2.075	2.049	2.040	1.843	1.521	0.719	0.759	Consistent normal use/customer
17	Current Month's HDD		0.00463	0.00452	0.00462	0.00429	0.00441	0.00338	0.00333	0.00394	R squared value and F are most
18	Previous Month's HDD		0.00847	0.00850	0.00824	0.00826	0.00789	0.00865	0.00868	0.00789	significant in 1995-2002 period
19	Trend		(0.02019)	(0.02385)	(0.02292)	(0.03306)	(0.03558)	(0.03401)	-	-	1995-2002 period contains both
20	R Squared		0.956	0.956	0.948	0.948	0.948	0.963	0.963	0.951	warmer and colder years
21	F		678,461	591,945	428,321	347,267	286,273	305,777	304,338	106,920	1995-2002 period is closest
22	Predicted Normal Use/Customer		71.813	70.761	69.753	68.749	68.522	68.978	71.705	70.133	to normal
23	Average Annual HDD	5,249									
24	Time Period Used		xxxxx								
25	Peak Day	81									
26	Load Factor		18.40%	18.27%	18.25%	18.38%	18.64%	19.07%	19.70%	19.88%	
27	Weather Station - Lexington										
28	Constant		1.810	1.814	1.641	1.556	0.920	0.879	0.725	2.867	Consistent normal use/customer
29	Current Month's HDD		0.00413	0.00399	0.00386	0.00368	0.00356	0.00249	0.00410	0.00572	R squared value and F are most
30	Previous Month's HDD		0.01074	0.01082	0.01077	0.01061	0.01102	0.01190	0.01087	0.00757	significant in 1995-2002 period
31	Trend		(0.01422)	(0.01692)	(0.01581)	(0.01708)	-	-	-	(0.25100)	1995-2002 period contains both
32	R Squared		0.971	0.970	0.968	0.961	0.956	0.970	0.978	0.976	warmer and colder years
33	F		1,038,314	870,852	672,353	486,155	506,231	560,857	507,304	149,272	1995-2002 period is closest
34	Predicted Normal Use/Customer		86.015	85.262	85.463	85.202	89.218	87.718	88.953	88.039	to normal
35	Average Annual HDD	5,382									
36	Time Period Used		xxxxx								
37	Peak Day	79									
38	Load Factor		19.77%	19.69%	19.92%	20.03%	20.68%	20.61%	20.20%	21.63%	
39	Weather Station - Marshall										
40	Constant		2.137	2.101	1.982	1.924	1.133	1.161	1.102	1.025	Consistent normal use/customer
41	Current Month's HDD		0.00573	0.00561	0.00575	0.00583	0.00600	0.00511	0.00526	0.00563	R squared value and F are most
42	Previous Month's HDD		0.00809	0.00807	0.00760	0.00756	0.00742	0.00804	0.00773	0.00768	significant in 1995-2002 period
43	Trend		(0.01629)	(0.01613)	(0.01883)	(0.02142)	-	-	-	-	1995-2002 period contains both
44	R Squared		0.971	0.970	0.968	0.962	0.956	0.974	0.974	0.954	warmer and colder years
45	F		1,068,479	889,085	667,275	499,140	512,398	655,760	438,059	113,970	1995-2002 period is relatively
46	Predicted Normal Use/Customer		83.655	83.316	83.130	82.636	87.334	86.187	84.573	85.417	close to normal
47	Average Annual HDD	5,493									
48	Time Period Used		xxxxx								
49	Peak Day	81									
50	Load Factor		20.13%	20.18%	20.31%	20.40%	21.28%	21.40%	21.29%	21.05%	
51	Weather Station - Nevada										
52	Constant		1.620	1.838	1.713	1.710	1.594	0.842	0.740	0.828	Consistent normal use/customer
53	Current Month's HDD		0.00526	0.00509	0.00512	0.00508	0.00505	0.00432	0.00465	0.00543	R squared value and F are strong
54	Previous Month's HDD		0.00964	0.00964	0.00938	0.00930	0.00905	0.00959	0.00920	0.00868	in 1995-2002 period and contains
55	Trend		(0.01370)	(0.01953)	(0.01998)	(0.02489)	(0.02998)	-	-	-	both warmer and colder years
56	R Squared		0.968	0.978	0.977	0.974	0.974	0.976	0.974	0.946	
57	F		935,266	1,200,538	993,622	744,312	581,722	698,783	434,601	97,930	
58	Predicted Normal Use/Customer		75.382	73.699	73.545	72.600	72.357	75.226	74.695	74.591	
59	Average Annual HDD	4,753									
60	Time Period Used		xxxxx								
61	Peak Day	78									
62	Load Factor		17.58%	17.41%	17.81%	17.66%	17.79%	18.77%	18.53%	18.23%	

Aquila Networks - MPS
Summary of Statistical Results from Heating
Degree Day Regression Analysis

[A] Line No.	[B] Description		[C] 1995-2002	[D] 1996-2002	[E] 1997-2002	[F] 1998-2002	[G] 1999-2002	[H] 2000-2002	[I] 2001-2002	[J] 2002	[K] Comments
	Trend		1,096	942	798	654	510	366	222	78	
63	Weather Station - Sedalia										
64	Constant		1.926	1.908	1.750	1.714	1.705	0.766	0.877	0.731	Consistent normal use/customer
65	Current Month's HDD		0.00714	0.00701	0.00688	0.00648	0.00658	0.00518	0.00508	0.00551	R squared value and F are most
66	Previous Month's HDD		0.00724	0.00723	0.00718	0.00735	0.00722	0.00828	0.00825	0.00766	significant in 1995-2002 period
67	Trend		(0.01949)	(0.02228)	(0.02298)	(0.02648)	(0.03573)	-	-	-	1995-2002 period contains both
68	R Squared		0.958	0.954	0.946	0.941	0.940	0.962	0.975	0.968	warmer and colder years
69	F		707.317	571.637	409.973	313.681	246.615	439.702	442.704	166.315	1995-2002 period is closest
70	Predicted Normal Use/Customer		78.124	77.331	77.168	76.525	75.385	80.511	78.776	78.570	to normal
71	Average Annual HDD	5,299									
72	Time Period Used		xxxxx								
73	Peak Day	82									
74	Load Factor		18.08%	18.07%	18.22%	18.35%	18.15%	19.54%	19.35%	19.50%	
75	Northern System - (M0002)										
76	Weather Station - Brookfield										
77	Constant		1.841	1.564	1.397	0.676	0.629	0.577	0.591	0.538	Consistent normal use/customer.
78	Current Month's HDD		0.00573	0.00571	0.00565	0.00525	0.00523	0.00396	0.00409	0.00460	R squared value and F are most
79	Previous Month's HDD		0.00903	0.00894	0.00887	0.00921	0.00923	0.01027	0.00983	0.00964	significant in 1995-2002 period
80	Trend		(0.01965)	(0.01799)	(0.01783)	-	-	-	-	-	1995-2002 period contains both
81	R Squared		0.968	0.966	0.959	0.951	0.948	0.974	0.978	0.980	warmer and colder years
82	F		942.517	752.577	546.096	575.568	433.019	644.576	515.553	131.384	1995-2002 period is closest
83	Predicted Normal Use/Customer		88.226	88.667	88.587	93.813	93.291	91.256	89.615	90.859	to normal
84	Average Annual HDD	5,928									
85	Time Period Used		xxxxx								
86	Peak Day	79									
87	Load Factor		20.70%	20.90%	21.04%	22.07%	21.97%	21.88%	21.94%	21.79%	
88	Weather Station - Chillicothe										
89	Constant		1.882	1.762	1.617	1.990	1.501	1.159	0.613	1.942	Consistent normal use/customer
90	Current Month's HDD		0.00579	0.00548	0.00538	0.00508	0.00485	0.00395	0.00322	0.00436	R squared value and F are most
91	Previous Month's HDD		0.00749	0.00761	0.00755	0.00763	0.00767	0.00826	0.00867	0.00681	significant in 1995-2002 period
92	Trend		(0.02156)	(0.02271)	(0.02395)	(0.02727)	(0.03278)	(0.02769)	-	(0.15800)	1995-2002 period contains both
93	R Squared		0.973	0.974	0.972	0.970	0.972	0.979	0.987	0.988	warmer and colder years
94	F		1,145.550	1,019.441	808.926	641.873	537.341	545.986	900.369	300.811	1995-2002 period is relatively
95	Predicted Normal Use/Customer		75.894	75.490	75.088	74.391	73.723	74.432	76.105	75.644	close to normal
96	Average Annual HDD	5,788									
97	Time Period Used		xxxxx								
98	Peak Day	81									
99	Load Factor		19.38%	19.52%	19.63%	19.76%	19.85%	20.40%	21.22%	22.16%	
100	Weather Station - Salisbury										
101	Constant		1.586	1.591	1.344	0.753	0.726	0.651	0.625	0.564	Consistent normal use/customer
102	Current Month's HDD		0.00529	0.00500	0.00470	0.00431	0.00413	0.00300	0.00328	0.00385	R squared value and F are most
103	Previous Month's HDD		0.00962	0.00983	0.00986	0.01003	0.01019	0.01118	0.01075	0.01040	significant in 1995-2002 period
104	Trend		(0.01633)	(0.01932)	(0.01842)	-	-	-	-	-	1995-2002 period contains both
105	R Squared		0.954	0.950	0.944	0.935	0.933	0.965	0.963	0.954	warmer and colder years
106	F		645.522	525.526	391.678	423.363	329.387	477.310	304.008	114.306	1995-2002 period is closest
107	Predicted Normal Use/Customer		85.105	84.244	84.859	89.672	89.191	87.532	86.360	86.893	to normal
108	Average Annual HDD	5,622									
109	Time Period Used		xxxxx								
110	Peak Day	81									
111	Load Factor		19.25%	19.18%	19.58%	20.71%	20.65%	20.50%	20.45%	20.30%	
112	Weather Station - Spickard										
113	Constant		0.988	0.794	0.726	0.207	0.119	0.147	0.163	3.050	Consistent normal use/customer
114	Current Month's HDD		0.00800	0.00799	0.00845	0.00840	0.00858	0.00818	0.00787	0.01164	R squared value and F are most
115	Previous Month's HDD		0.00540	0.00527	0.00472	0.00441	0.00418	0.00444	0.00462	-	significant in 1995-2002 period
116	Trend		(0.01612)	(0.01487)	(0.01627)	-	-	-	-	(0.36000)	1995-2002 period contains both
117	R Squared		0.962	0.958	0.958	0.961	0.961	0.958	0.958	0.934	warmer and colder years
118	F		788.334	630.229	533.478	734.216	583.388	402.905	265.974	78.612	1995-2002 period is closest
119	Predicted Normal Use/Customer		80.706	81.007	80.680	85.033	83.628	82.965	82.463	83.540	to normal
120	Average Annual HDD	6,445									
121	Time Period Used		xxxxx								
122	Peak Day	82									
123	Load Factor		20.41%	20.64%	20.87%	22.04%	21.63%	21.90%	21.94%	23.41%	

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[A] Line No.	[B] Description		[C] 1995-2002	[D] 1996-2002	[E] 1997-2002	[F] 1998-2002	[G] 1999-2002	[H] 2000-2002	[I] 2001-2002	[J] 2002	[K] Comments
	Trend		1,086	942	798	654	510	366	222	78	
124	Eastern System - (MO003)										
125	Weather Station - Rolla										
126	Constant		1 168	1 822	1 537	0 936	0 899	0 836	0 759	0 742	Consistent normal use/customer.
127	Current Month's HDD		-	0 00124	0 00162	0 00178	0 00170	0 00198	0 00270	0 00295	R squared value and F are most
128	Previous Month's HDD		0 01100	0 01001	0 00953	0 00939	0 00937	0 00911	0 00831	0 00816	significant in 1995-2002 period
129	Trend		-	(0 01664)	(0 01485)	-	-	-	-	-	1995-2002 period contains both
130	R Squared		0 920	0 927	0 937	0 940	0 933	0 963	0 973	0 952	warmer and colder years.
131	F		1,085 836	347 307	350 024	483 963	328 909	452 910	415 354	109 421	1995-2002 period is relatively
132	Predicted Normal Use/Customer		67 628	61 029	61 449	65 687	64 751	64 053	62 783	63 086	close to normal
133	Average Annual HDD	4,876									
134	Time Period Used		xxxxx								
135	Peak Day	76									
136	Load Factor		21 19%	19 18%	19 28%	20 46%	20 38%	20 18%	19 96%	19 89%	
137	Commercial Firm										
138	Southern System - (MO051)										
139	Weather Station - Clinton										
140	Constant		4 647	4 705	4 801	4 920	4 808	4 803	4 723	6 068	Consistent normal use/customer
141	Current Month's HDD		0 01511	0 01478	0 01446	0 01391	0 01391	0 01172	0 01240	-	R squared value and F are most
142	Previous Month's HDD		0 02136	0 02161	0 02132	0 02145	0 02170	0 02317	0 02334	0 03224	significant in 1995-2002 period.
143	Trend		-	-	-	-	-	-	-	-	1995-2002 period contains both
144	R Squared		0 921	0 918	0 909	0 898	0 892	0 900	0 898	0 826	warmer and colder years.
145	F		550 914	458 066	349 994	260 100	195 359	158 031	99 618	53 311	1995-2002 period is relatively
146	Predicted Normal Use/Customer		248 836	249 039	247 031	246 236	246 191	242 344	245 884	243 471	close to normal
147	Average Annual HDD	5,294									
148	Time Period Used		xxxxx								
149	Peak Day	82									
150	Load Factor		21 69%	21 75%	21 69%	22 04%	21 91%	21 99%	21 83%	23 46%	
151	Weather Station - KCI										
152	Constant		3 512	3 595	3 678	4 040	4 027	3 829	2 836	3 167	Consistent normal use/customer
153	Current Month's HDD		0 01352	0 01351	0 01360	0 01240	0 01256	0 00856	0 01238	0 01485	R squared value and F are most
154	Previous Month's HDD		0 02885	0 02910	0 02920	0 03090	0 03065	0 03447	0 03221	0 02760	significant in 1995-2002 period
155	Trend		-	-	-	-	-	-	-	-	1995-2002 period contains both
156	R Squared		0 935	0 936	0 931	0 934	0 928	0 945	0 959	0 934	warmer and colder years.
157	F		676 067	603 298	471 499	415 677	306 829	302 789	289 824	79 095	1995-2002 period is closest
158	Predicted Normal Use/Customer		264 544	266 800	269 843	272 812	275 133	269 418	268 065	259 774	to normal
159	Average Annual HDD	5,248									
160	Time Period Used		xxxxx								
161	Peak Day	81									
162	Load Factor		20 43%	20 49%	20 51%	20 80%	20 75%	20 48%	19 82%	20 18%	
163	Weather Station - Lexington										
164	Constant		9 483	8 754	8 878	9 048	8 800	8 488	7 132	9 484	Consistent normal use/customer
165	Current Month's HDD		0 01997	0 01974	0 01866	0 01712	0 01634	0 01097	0 02013	-	R squared value and F are most
166	Previous Month's HDD		0 03822	0 03844	0 03918	0 04083	0 04259	0 04875	0 04417	0 05489	significant in 1995-2002 period
167	Trend		-	-	-	-	-	-	-	-	1995-2002 period contains both
168	R Squared		0 931	0 926	0 915	0 904	0 898	0 911	0 915	0 761	warmer and colder years.
169	F		639 051	513 840	378 552	278 232	207 217	179 174	124 643	35 992	1995-2002 period is closest
170	Predicted Normal Use/Customer		413 571	417 009	416 728	419 304	422 479	422 075	430 361	408 128	to normal
171	Average Annual HDD	5,362									
172	Time Period Used		xxxxx								
173	Peak Day	79									
174	Load Factor		23 24%	23 39%	23 48%	23 56%	23 37%	23 14%	22 19%	24 06%	
175	Weather Station - Marshall										
176	Constant		9 327	11 151	8 256	8 488	8 033	6 982	5 813	20 352	Fairly consistent use/customer
177	Current Month's HDD		0 02884	0 02914	0 02925	0 02855	0 02914	0 02443	0 02925	0 05011	R squared value and F are most
178	Previous Month's HDD		0 02521	0 02400	0 02391	0 02395	0 02367	0 02919	0 02639	-	significant in 1995-2002 period
179	Trend		-	(0 05785)	-	-	-	-	-	(1 83300)	1995-2002 period contains both
180	R Squared		0 929	0 924	0 916	0 901	0 897	0 908	0 884	0 900	warmer and colder years.
181	F		614 743	332 338	382 486	269 434	206 103	173 039	88 637	50 646	1995-2002 period is relatively
182	Predicted Normal Use/Customer		396 821	371 215	391 080	390 239	386 481	378 319	375 441	376 504	close to normal
183	Average Annual HDD	5,493									
184	Time Period Used		xxxxx								
185	Peak Day	81									
186	Load Factor		23 37%	22 49%	23 41%	23 58%	23 31%	22 67%	21 89%	23 79%	

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[A] Line No.	[B] Description		[C] 1995-2002	[D] 1996-2002	[E] 1997-2002	[F] 1998-2002	[G] 1999-2002	[H] 2000-2002	[I] 2001-2002	[J] 2002	[K] Comments
	Trend		1,088	942	798	654	510	366	222	78	
187	Weather Station - Nevada										
188	Constant		8.456	9.207	9.434	9.897	9.765	9.860	6.629	7.433	Normal use/customer is slightly
189	Current Month's HDD		0.00827	0.00860	0.00886	0.00816	0.00780	0.00532	-	-	declining R squared value and
190	Previous Month's HDD		0.03540	0.03448	0.03312	0.03255	0.03183	0.03283	0.03737	0.03507	F are most significant in
191	Trend		(0.03699)	(0.05705)	(0.06750)	(0.08785)	(0.10300)	(0.13400)	-	-	1995-2002 period and contains
192	R Squared		0.954	0.955	0.954	0.952	0.950	0.952	0.936	0.876	both warmer and colder years
193	F		654.909	586.394	488.428	391.507	297.637	234.219	335.173	78.716	
194	Predicted Normal Use/Customer		266.697	261.507	258.883	254.824	252.988	250.589	259.568	255.884	
195	Average Annual HDD	4,753									
196	Time Period Used		xxxxx								
197	Peak Day	78									
198	Load Factor		20.48%	20.38%	20.64%	20.88%	21.21%	21.69%	22.65%	23.53%	
199	Weather Station - Sedalia										
200	Constant		8.492	8.633	8.089	5.171	4.890	5.110	4.377	7.586	Fairly consistent use/customer
201	Current Month's HDD		0.01992	0.01973	0.01908	0.01670	0.01697	0.01197	0.01254	-	R squared value and F are most
202	Previous Month's HDD		0.03487	0.03485	0.03478	0.03606	0.03586	0.03921	0.03948	0.04332	significant in 1995-2002 period
203	Trend		(0.06416)	(0.07876)	(0.08022)	-	-	-	-	-	1995-2002 period contains both
204	R Squared		0.934	0.932	0.921	0.911	0.905	0.937	0.940	0.873	warmer and colder years
205	F		442.169	373.024	272.870	303.704	225.413	259.786	181.433	76.705	1995-2002 period is closest
206	Predicted Normal Use/Customer		322.558	318.624	318.298	341.627	339.156	332.523	328.178	320.585	to normal
207	Average Annual HDD	5,299									
208	Time Period Used		xxxxx								
209	Peak Day	82									
210	Load Factor		19.29%	19.16%	19.36%	20.82%	20.84%	20.87%	20.39%	23.10%	
211	Northern System - (MO052)										
212	Weather Station - Brookfield										
213	Constant		6.335	5.619	5.296	2.482	6.624	6.624	8.209	3.230	Normal use/customer is slightly
214	Current Month's HDD		0.01519	0.01539	0.01566	0.01412	0.01493	0.01141	0.01530	-	declining R squared value and
215	Previous Month's HDD		0.02503	0.02434	0.02561	0.02457	0.02425	0.02648	0.02120	0.03116	F are most significant
216	Trend		(0.06728)	(0.06480)	(0.07001)	-	(0.16300)	(0.21600)	(0.45200)	-	in 1995-2002 period and contains
217	R Squared		0.921	0.914	0.900	0.883	0.905	0.923	0.822	0.812	both warmer and colder years
218	F		366.671	290.114	210.886	223.777	150.454	140.860	91.056	48.628	1995-2002 period is closest
219	Predicted Normal Use/Customer		241.378	241.906	240.465	259.138	228.617	225.044	214.536	223.476	to normal
220	Average Annual HDD	5,928									
221	Time Period Used		xxxxx								
222	Peak Day	79									
223	Load Factor		20.76%	21.00%	21.09%	22.62%	20.30%	20.59%	20.42%	23.84%	
224	Weather Station - Chillicothe										
225	Constant		14.946	13.251	11.844	10.367	11.834	11.078	10.885	17.033	Consistent normal use/customer
226	Current Month's HDD		0.02420	0.02280	0.02242	0.02080	0.02029	0.01708	0.01784	0.02301	R squared value and F are most
227	Previous Month's HDD		0.02474	0.02439	0.02359	0.02357	0.02377	0.02537	0.02244	0.00840	significant in 1995-2002 period,
228	Trend		(0.15100)	(0.13800)	(0.13300)	(0.11600)	(0.20200)	(0.23700)	(0.35700)	(1.21900)	1995-2002 period contains both
229	R Squared		0.934	0.934	0.926	0.920	0.940	0.942	0.942	0.943	warmer and colder years
230	F		444.310	390.263	292.536	227.790	245.904	191.173	126.421	62.008	1995-2002 period is relatively
231	Predicted Normal Use/Customer		298.533	302.057	302.208	305.265	293.819	291.694	285.626	291.052	close to normal
232	Average Annual HDD	5,786									
233	Time Period Used		xxxxx								
234	Peak Day	81									
235	Load Factor		20.42%	21.21%	21.64%	22.44%	21.91%	22.43%	22.97%	28.04%	
236	Weather Station - Salisbury										
237	Constant		3.638	3.293	0.154	0.195	4.124	4.259	0.449	1.236	Fairly consistent use/customer
238	Current Month's HDD		0.01365	0.01296	0.01207	0.01119	0.01144	0.00870	-	-	R squared value and F are most
239	Previous Month's HDD		0.02628	0.02653	0.02705	0.02682	0.02716	0.02892	0.03526	0.02993	significant in 1995-2002 period
240	Trend		(0.08204)	(0.08587)	-	-	(0.15000)	(0.20900)	-	-	1995-2002 period contains both
241	R Squared		0.913	0.905	0.885	0.874	0.905	0.928	0.898	0.792	warmer and colder years
242	F		329.285	262.019	270.184	206.483	150.386	152.063	203.162	42.868	1995-2002 period is closest
243	Predicted Normal Use/Customer		200.767	199.668	221.781	216.032	189.997	188.097	203.732	183.098	to normal
244	Average Annual HDD	5,622									
245	Time Period Used		xxxxx								
246	Peak Day	81									
247	Load Factor		17.36%	17.44%	19.14%	19.18%	17.05%	17.12%	19.43%	20.35%	

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[A] Line No	[B] Description		[C] 1995-2002	[D] 1996-2002	[E] 1997-2002	[F] 1998-2002	[G] 1999-2002	[H] 2000-2002	[I] 2001-2002	[J] 2002	[K] Comments
	Trend		1,086	942	798	654	510	366	222	78	
248	Weather Station - Spickard										
249	Constant		6,896	6,359	5,635	2,935	5,416	2,626	8,245	14,253	Normal use/customer is slightly
250	Current Month's HDD		0.02367	0.02384	0.02469	0.02363	0.02458	0.02176	0.02475	0.03141	declining. R squared value and
251	Previous Month's HDD		0.01994	0.01912	0.01747	0.01899	0.01620	0.01881	0.01422	-	F are most significant
252	Trend		(0.07895)	(0.08050)	(0.07705)	-	(0.10300)	-	(0.40500)	(1.41300)	in 1995-2002 period and contains
253	R Squared		0.946	0.942	0.940	0.940	0.944	0.940	0.946	0.936	both warmer and colder years
254	F		547.995	441.432	365.149	459.607	264.667	274.858	134.462	81.887	1995-2002 period is closest
255	Predicted Normal Use/Customer		276,079	277,342	277,855	297,026	275,289	292,986	259,970	263,259	to normal
256	Average Annual HDD	6,445									
257	Time Period Used		xxxxx								
258	Peak Day	82									
259	Load Factor		21.35%	21.56%	21.91%	23.74%	22.33%	23.52%	22.12%	26.30%	
260	Eastern System - (MO053)										
261	Weather Station - Rolla										
262	Constant		12,522	11,270	9,796	9,896	7,390	7,368	7,103	7,605	Rapid addition of customers in
263	Current Month's HDD		-	-	-	-	-	-	-	-	1995-1998. Actual monthly use
264	Previous Month's HDD		0.04223	0.04282	0.04270	0.04348	0.04343	0.04268	0.04229	0.03955	per customer stabilizes
265	Trend		(0.06741)	(0.06316)	(0.04661)	(0.07109)	-	-	-	-	beginning in January 1999
266	R Squared		0.926	0.941	0.944	0.947	0.939	0.952	0.953	0.919	R squared value and F are most
267	F		586.376	659.483	587.353	527.966	718.827	688.861	471.186	125.630	significant in 1999-2002 period
268	Predicted Normal Use/Customer		282,970	284,534	288,562	284,268	300,445	298,426	291,442	284,106	
269	Average Annual HDD	4,876									
270	Time Period Used						xxxxx				
271	Peak Day	76									
272	Load Factor		22.66%	22.52%	22.81%	22.24%	23.23%	23.31%	23.16%	23.91%	
273	**Industrial Firm**										
274	Southern System - (MO051)										
275	Weather Station - Clinton										
276	Constant		122,470	70,388	58,370	44,346	45,256	49,626	44,612	178,932	Change in actual use per customer
277	Current Month's HDD		0.20700	0.19000	0.18800	0.20000	0.20300	0.15600	-	-	beginning in January 1999
278	Previous Month's HDD		0.30900	0.32300	0.33700	0.34100	0.35600	0.41200	0.54100	0.51900	R squared and F statistic are most
279	Trend		(0.86500)	-	-	-	-	-	-	(18.16100)	significant in 1999-2002 period
280	R Squared		0.873	0.859	0.869	0.876	0.878	0.894	0.864	0.911	if time prior to January 1999 is
281	F		216.609	251.172	233.477	210.361	170.730	148.331	146.611	57.010	excluded from analysis
282	Predicted Normal Use/Customer		3,230,190	3,560,478	3,479,790	3,396,206	3,502,418	3,602,504	3,399,398	3,478,212	
283	Average Annual HDD	5,294									
284	Time Period Used						xxxxx				
285	Peak Day	82									
286	Load Factor		20.45%	21.98%	21.20%	20.31%	20.28%	20.47%	20.32%	21.39%	
287	Weather Station - Lexington										
288	Constant			58,986	26,746	29,206	285,271	4,145	(3,502)	(47,069)	One customer. Full year's usage
289	Current Month's HDD			0.51000	0.44500	0.49200	0.53200	0.52900	0.61800	-	begins in 1997. F statistic and
290	Previous Month's HDD			0.67800	0.92300	0.80900	0.77700	0.72300	0.54700	1.37200	R squared value are most
291	Trend		N/A	-	-	-	(8.39300)	-	-	-	significant in 1997-2002 period if
292	R Squared			0.582	0.731	0.697	0.768	0.809	0.818	0.757	time prior to 1997 is excluded
293	F			59.178	96.282	68.903	52.729	75.209	52.891	35.255	from analysis
294	Predicted Normal Use/Customer			7,077,888	7,656,168	7,326,434	6,161,680	6,762,964	7,277,106	6,791,836	
295	Average Annual HDD	5,382									
296	Time Period Used				xxxxx						
297	Peak Day	79									
298	Load Factor			20.24%	19.25%	19.35%	16.70%	18.71%	18.51%	17.42%	
299	Weather Station - Marshall					Did not adjust. Erratic pattern due to entry and exit of customers.					
300	Weather Station - Sedalia										
301	Constant		492,855	456,926	449,714	395,497	146,911	96,388	89,235	110,060	Change in actual use per customer
302	Current Month's HDD		0.15500	0.12900	-	-	-	-	-	-	beginning in January 2000.
303	Previous Month's HDD		0.42300	0.39600	0.48000	0.48100	0.47400	0.45800	0.42900	0.38900	2000-2002 period is closest
304	Trend		(5.63500)	(5.78500)	(6.69700)	(7.16300)	(2.03900)	-	-	-	to normal if time prior to 2000 is
305	R Squared		0.780	0.835	0.810	0.768	0.817	0.811	0.880	0.868	excluded from analysis
306	F		112.005	139.141	150.634	96.627	105.611	150.862	170.036	73.504	
307	Predicted Normal Use/Customer		2,857,472	2,815,617	2,595,882	2,504,201	3,234,768	3,583,598	3,344,091	3,382,031	
308	Average Annual HDD	5,299									
309	Time Period Used							xxxxx			
310	Peak Day	82									
311	Load Factor		16.72%	17.68%	18.00%	18.07%	21.70%	24.11%	24.04%	26.09%	

Aquila Networks - MPS
Summary of Statistical Results from Heating
Degree Day Regression Analysis

[A] Line No.	[B] Description		[C] 1995-2002	[D] 1996-2002	[E] 1997-2002	[F] 1998-2002	[G] 1999-2002	[H] 2000-2002	[I] 2001-2002	[J] 2002	[K] Comments
	Trend		1,086	942	798	654	510	366	222	78	
312	Northern System - (MO052)										
313	Weather Station - Brookfield										
314	Constant		106.181	98.387	69.006	42.338	9.466	14.610	13.791	11.636	Same number of customers
315	Current Month's HDD		0.13400	0.12700	0.08989	0.07545	0.06092	-	-	0.05814	beginning in July 1999
316	Previous Month's HDD		0.10700	0.10700	0.10300	0.09163	0.09939	0.13800	0.13700	0.08194	F statistic and R squared value
317	Trend		(1.80000)	(1.99500)	(1.49000)	(0.95500)	-	-	-	-	are most significant in 2000-2002
318	R Squared		0.770	0.756	0.743	0.765	0.733	0.775	0.762	0.918	period if tune prior to 2000 is
319	F		105.919	85.697	69.541	84.954	65.673	121.650	74.690	82.935	excluded from analysis
320	Predicted Normal Use/Customer		748.020	688.506	782.504	873.996	1,062.131	993.384	977.628	1,017.450	
321	Average Annual HDD	5,928									
322	Time Period Used							xxxxx			
323	Peak Day	79									
324	Load Factor		11.93%	11.38%	15.05%	18.59%	22.47%	23.91%	23.75%	23.07%	
325	Large Volume Firm - (MO282)				Not Statistically Significant (Only 9 months of actual usage)						
326	Large Volume Interruptible - (MO262)				Not Statistically Significant (Only 4 days of actual usage)						
327	Small Volume Transportation - (MO01E)				Did not adjust - No seasonal pattern						
328	Large Volume Transportation										
329	Southern System - (MO691)										
330	Weather Station - Nevada										
331	Constant		9,586.606	9,694.652	9,741.857	9,780.655	10,529.556	9,794.989	8,974.558	9,680.347	Fairly consistent normal use per
332	Current Month's HDD		2.70400	2.73700	2.07200	2.06700	1.79800	-	-	-	customer. Change in significance
333	Previous Month's HDD		1.33700	0.98500	1.76600	1.50700	1.49100	3.31500	3.57600	3.78300	of current and prevous HDD
334	Trend		-	-	-	-	(22.95900)	-	38.91200	-	coefficient in 2000-2002
335	R Squared		0.666	0.666	0.731	0.693	0.706	0.772	0.855	0.863	F value most significant
336	F		95.534	83.611	97.527	87.705	38.701	119.404	68.965	70.206	in 2000-2002 for that period
337	Predicted Normal Use/Customer		134,248.145	134,026.490	135,144.298	134,450.142	130,278.198	133,296.063	133,329.886	134,264.783	
338	Average Annual HDD	4,753									
339	Time Period Used							xxxxx			
340	Peak Day	78									
341	Load Factor		58.35%	60.29%	59.75%	61.20%	62.55%	62.90%	61.12%	59.94%	
342	Weather Station - Marshall										
343	Constant		5,634.145	5,657.792	5,756.759	5,854.798	5,916.638	6,943.190	5,473.758	4,508.402	Fairly consistent normal use per
344	Current Month's HDD		1.00700	-	-	-	-	-	-	-	customer. Improvement in F
345	Previous Month's HDD		2.07500	2.80100	2.75800	2.91400	2.99100	3.01900	3.19200	4.65400	statistic in 1997-2002 period
346	Trend		-	-	-	-	-	(57.01900)	-	-	
347	R Squared		0.540	0.514	0.480	0.505	0.532	0.663	0.581	0.930	
348	F		56.663	88.885	86.484	61.253	54.401	35.444	32.918	148.250	
349	Predicted Normal Use/Customer		84,539.166	83,639.397	84,230.802	86,264.178	87,429.219	79,032.863	83,218.752	79,565.246	
350	Average Annual HDD	5,493									
351	Time Period Used			xxxxx							
352	Peak Day	81									
353	Load Factor		53.26%	55.37%	55.92%	55.15%	54.84%	52.10%	51.99%	41.56%	
354	Weather Station - Sedalia										
355	Constant		4,051.137	4,328.701	4,537.709	4,465.315	4,526.648	4,157.268	3,643.115	3,731.915	Fairly consistent normal use per
356	Current Month's HDD		1.75000	1.69900	1.28300	1.15000	0.90200	-	-	-	customer. Change in significance
357	Previous Month's HDD		-	-	0.55300	0.81200	0.94800	1.71000	1.75200	1.74300	of current and previous HDD
358	Trend		-	(5.92500)	(12.96000)	(16.54100)	(23.48000)	(16.64600)	-	-	coefficient in 2000-2002
359	R Squared		0.607	0.600	0.675	0.695	0.705	0.715	0.736	0.721	R squared and F statistic are
360	F		147.679	63.169	50.238	45.807	36.528	44.980	65.162	29.400	relatively strong for 2000-2002
361	Predicted Normal Use/Customer		57,886.654	55,378.063	53,899.392	53,162.818	52,148.125	52,856.070	53,001.228	54,019.137	period
362	Average Annual HDD	5,298									
363	Time Period Used							xxxxx			
364	Peak Day	82									
365	Load Factor		57.32%	56.96%	54.35%	52.38%	53.37%	55.65%	55.12%	55.72%	

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[A] Line No	[B] Description		[C] 1995-2002	[D] 1996-2002	[E] 1997-2002	[F] 1998-2002	[G] 1999-2002	[H] 2000-2002	[I] 2001-2002	[J] 2002	[K] Comments
	Trend		1,096	942	798	654	510	368	222	78	
366	Weather Station - Clinton										
367	Constant		1,223.700	1,266.305	1,113.329	737.074	911.758	712.042	812.876	843.228	Fairly consistent normal use per
368	Current Month's HDD		1.34500	1.15800	0.93700	0.84300	0.67300	-	-	-	customer. Change in significance
369	Previous Month's HDD		0.59300	0.85300	0.99700	1.00200	1.20500	1.77600	1.80500	1.75200	of current and previous HDD
370	Trend		(7.80600)	(10.12500)	(8.76200)	-	(6.93100)	-	(10.12500)	-	coefficient in 2000-2002
371	R Squared		0.834	0.858	0.848	0.839	0.880	0.921	0.970	0.983	R squared and F statistic are
372	F		160.324	157.846	132.890	155.301	115.640	408.281	369.476	628.481	relatively strong for 2000-2002
373	Predicted Normal Use/Customer		16,998.256	16,304.144	16,606.420	18,612.318	17,099.576	17,946.548	17,062.432	16,993.824	period
374	Average Annual HDD	5,294									
375	Time Period Used							xxxxx			
376	Peak Day	82									
377	Load Factor		25.29%	24.76%	25.85%	29.05%	27.49%	29.09%	27.73%	28.25%	
378	Weather Station - Lexington					Did not adjust - No seasonal pattern					
379	Northern System - (MO502)										
380	Weather Station - Chillicothe										
381	Constant		27,359.147	28,659.122	30,870.883	34,815.326	36,154.448	36,827.591	36,547.572	37,475.964	Fairly consistent normal use per
382	Current Month's HDD		17.38700	16.32000	15.25500	13.73800	11.92200	-	-	-	customer. Change in significance
383	Previous Month's HDD		4.90300	5.58900	7.09300	8.42200	9.03600	19.50600	17.58600	16.94800	of current and previous HDD
384	Trend		103.53000	105.80400	81.68400	-	-	-	-	-	coefficient in 2000-2002
385	R Squared		0.747	0.729	0.730	0.712	0.702	0.706	0.754	0.810	F value most significant
386	F		94.498	75.528	64.892	74.063	56.362	85.216	71.456	47.999	in 2000-2002 for that period
387	Predicted Normal Use/Customer		569,713.284	570,342.306	564,939.956	543,601.672	555,116.364	554,810.168	540,323.460	547,761.124	
388	Average Annual HDD	5,788									
389	Time Period Used							xxxxx			
390	Peak Day	81									
391	Load Factor		51.80%	52.28%	51.53%	50.78%	52.69%	54.46%	56.37%	57.62%	
392	Eastern System - (MO503)										
393	Weather Station - Rolla										
394	Constant							2,047.270	1,821.327	3,078.715	Do not adjust - erratic data
395	Current Month's HDD							-	-	0.93900	
396	Previous Month's HDD							1.20500	1.42900	-	
397	Trend		N/A	N/A	N/A	N/A	N/A	25.44400	56.04100	-	
398	R Squared							0.412	0.459	0.480	
399	F							12.899	10.745	10.353	
400	Predicted Normal Use/Customer										
401	Average Annual HDD	4,876									
402	Time Period Used										
403	Peak Day	76									
404	Load Factor										
405	Special Contract Customers										
406	Southern System										
407	Pittsburgh Corning - (MO521)					Did not adjust - No seasonal pattern					
408	Tyson Foods Inc - (MO522)										
409	Weather Station - Sedalia										
410	Constant		10,075.8520	17,798.6030	25,141.0250	33,178.7140	40,074.5550	41,295.6440	43,794.0370	51,560.1340	R squared value and F are most
411	Current Month's HDD		6.40600	6.02500	5.58800	7.23300	8.05600	4.35200	0.46200	9.68500	significant in 1995-2002 period
412	Previous Month's HDD		-	-	-	-	-	5.77500	9.00100	-	
413	Trend		511.08100	484.87800	447.28400	371.23700	277.51500	333.59300	460.13800	-	
414	R Squared		0.9140	0.8870	0.8310	0.7390	0.6440	0.6160	0.4850	0.3270	
415	F		488.442	326.462	175.614	84.730	43.550	19.743	8.224	6.343	
416	Predicted Normal Use/Customer		709,889.584	702,267.187	693,534.744	679,261.233	665,116.054	671,305.739	677,823.517	671,242.423	
417	Average Annual HDD	5,299									
418	Time Period Used		xxxxx								
419	Peak Day	82									
420	Load Factor		61.82%	62.55%	61.04%	79.22%	77.02%	72.91%	74.41%	73.78%	

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Degree Day Regression Analysis

[A] Line No.	[B] Description		[C] 1995-2002	[D] 1996-2002	[E] 1997-2002	[F] 1998-2002	[G] 1999-2002	[H] 2000-2002	[I] 2001-2002	[J] 2002	[K] Comments
	Trend		1,086	942	798	654	510	366	222	78	
421	Tyson Foods Inc - (MO523)										
422	Weather Station - Sedalia										
423	Constant					3,257 849	3,256 633	3,261 568	3,261 124	2,943 977	Complete year of data beginning in 1998 Consistent use per customer F value and R squared are most significant in 2000-2002 period
424	Current Month's HDD					-	-	-	-	-	
425	Previous Month's HDD					1 14800	1 14800	1 21900	1 27800	1 93700	
426	Trend		N/A	N/A	N/A	-	-	-	-	-	
427	R Squared					0 565	0 563	0 641	0 629	0 784	
428	F					84 649	61 584	83 410	34 484	40 928	
429	Predicted Normal Use/Customer					45,177 440	45,162 848	45,598 297	45,905 610	45,591 887	
430	Average Annual HDD	5,299									
431	Time Period Used							xxxxx			
432	Peak Day	82									
433	Load Factor					61 50%	61 50%	60 30%	59 32%	48 86%	
434	Tyson Foods inc - (MO524)										
435	Weather Station - Sedalia										
436	Constant					885 461	879 272	462 039	459 788	116 203	Complete year of data beginning in 1999 Consistent use per customer during 2000-2002 period F value and R squared are most significant in 2000-2002 period
437	Current Month's HDD					0 78500	0 85400	0 31300	-	-	
438	Previous Month's HDD					0 71000	0 83500	1 21300	1 46200	1 82000	
439	Trend		N/A	N/A	N/A	(9 32300)	(8 72800)	-	-	39 74700	
440	R Squared					0 832	0 853	0 903	0 945	0 967	
441	F					81 684	91 988	183 765	397 596	161 062	
442	Predicted Normal Use/Customer					12,450 295	12,865 195	13,630 742	13,264 594	13,079 082	
443	Average Annual HDD	5,299									
444	Time Period Used							xxxxx			
445	Peak Day	82									
446	Load Factor					25 27%	25 97%	26 61%	26 92%	24 69%	
447	Excel Corporation - (MO525)					Did not adjust - No seasonal pattern					
448	Municipal Utilities - (MO526)					Did not adjust - No seasonal pattern					
449	Northern System										
450	Chillicothe PO - (MO527)					Did not adjust - No seasonal pattern					
451	Glen Gery - (MO528)					Did not adjust - No seasonal pattern					
452	Wire Rope Corporation - (MO529)					Did not adjust - No seasonal pattern					
453	Eastern System										
454	Phelps County - (MO530)										
455	Weather Station - Rolla										
456	Constant		3,181 690	3,042 722	3,046 383	3,055 163	3,023 985	2,503 925	2,548 853	2,449 589	Complete year of data beginning in 1998 Change in significance of current and previous HDD coefficient in 2000-2002 period
457	Current Month's HDD		1 79500	1 76200	1 49700	1 33900	0 99800	-	-	0 49900	
458	Previous Month's HDD		0 47500	0 50800	0 70000	0 82200	0 96300	1 87700	1 51400	1 17900	
459	Trend		(9 87900)	(9 50700)	(11 45000)	(15 00800)	(17 45500)	-	-	-	
460	R Squared		0 756	0 745	0 720	0 724	0 701	0 738	0 854	0 935	
461	F		90 021	82 196	61 800	52 603	37 664	99 564	135 973	80 595	
462	Predicted Normal Use/Customer		38,520 208	38,625 590	38,132 068	37,383 760	36,947 606	39,199 352	37,968 500	37,578 996	
463	Average Annual HDD	4,876									
464	Time Period Used							xxxxx			
465	Peak Day	76									
466	Load Factor		42 60%	42 67%	43 15%	43 07%	45 18%	47 74%	52 31%	49 48%	
467	University of Missouri TJ Hall - (MO531)										
468	Weather Station - Rolla										
469	Constant		399 129	406 878	406 087	403 128	430 215	419 802	381 261	386 752	Complete year of data beginning in 1996 Change in significance of current and previous HDD coefficient in 1999-2002 period
470	Current Month's HDD		0 86500	0 78600	0 69900	0 52500	-	-	-	-	
471	Previous Month's HDD		0 61000	0 67800	0 75200	0 92100	1 37400	1 45300	1 51900	1 44700	
472	Trend		-	-	-	-	-	-	-	-	
473	R Squared		0 811	0 798	0 770	0 774	0 768	0 874	0 953	0 933	
474	F		202 798	165 346	120 167	102 111	156 515	242 720	458 711	153 438	
475	Predicted Normal Use/Customer		12,084 044	12,021 000	11,948 120	11,888 232	11,862 204	12,122 452	11,981 776	11,696 596	
476	Average Annual HDD	4,876									
477	Time Period Used						xxxxx				
478	Peak Day	76									
479	Load Factor		26 11%	26 42%	26 48%	26 45%	27 41%	25 73%	25 65%	25 12%	

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Degree Day Regression Analysis

Line No	Description		1995-2002	1996-2002	1997-2002	1998-2002	1999-2002	2000-2002	2001-2002	2002	Comments
	Trend		1,088	942	798	654	510	366	222	78	
480	Special Contract Customers Cont.										
481	Eastern System										
482	Royal Canine US - (MO532)					Did not adjust - No seasonal pattern					
483	Briggs & Stratton -(MO533)										
484	Weather Station - Rolla										
485	Constant		4,352.542	5,074.027	5,885.854	7,459.506	7,445.537	7,403.248	5,997.859	7,887.510	Complete year of data beginning in 1998. Change in significance of current and previous HDD coefficient in 2000-2002 period
486	Current Month's HDD		2.47200	2.55800	2.41200	2.43200	2.21600	-	-	-	
487	Previous Month's HDD		1.66500	1.49400	1.63600	1.52300	1.85200	4.19300	4.37600	3.17900	
488	Trend		41.48500	38.01000	36.43600	-	-	-	80.87500	-	
489	R Squared		0.568	0.555	0.487	0.557	0.535	0.804	0.707	0.578	
490	F		38.870	35.625	23.448	38.061	28.125	54.397	28.705	16.097	
491	Predicted Normal Use/Customer		117,460.102	116,451.296	114,656.224	108,798.676	109,182.012	109,284.044	111,221.534	110,150.924	
492	Average Annual HDD	4,876									
493	Time Period Used							xxxxx			
494	Peak Day	76									
495	Load Factor		55.39%	55.89%	55.33%	54.61%	54.00%	53.27%	52.64%	60.25%	
496	Busy Bee Laundry - (MO534)					Did not adjust - No seasonal pattern					
497	Vonhoffmann Graphic - (MO535)					Did not adjust - No seasonal pattern					

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
				HDD		HDD									
Line	Customer	Weather		Current Month		Previous Month		Adjustment	2002	Adjusted	Margin		Cost of Gas		Total
No	Classification	Station	Month	Actual	Normal	Actual	Normal	Mcf/cust	# of Cust.	Units Mcf	$/Mcf	$	$/Mcf	$	Adjustment $
										[I]X[J]		[K]X[L]	(1), (2), (3)	[K]X[N]	[M]+[O]
1	Residential														
2		Southern System - (MO931)													
3		Clinton			0.00660		0.00697								
4			January	997	1,174	838	1,025	2.47	3,727	9,206	2.2295	20,528	6.2320	57,382	77,910
5			February	830	903	997	1,174	1.70	3,689	6,253	2.2295	13,941	6.2320	38,969	52,910
6			March	816	673	833	903	(0.46)	3,733	(1,700)	2.2295	(3,791)	6.2320	(10,596)	(14,387)
7			April	288	352	816	673	(0.57)	3,697	(2,123)	2.2295	(4,733)	6.2320	(13,231)	(17,965)
8			May	159	148	288	352	0.37	3,609	1,348	2.2295	3,004	6.2320	8,398	11,403
9			June	3	10	159	148	(0.03)	3,636	(111)	2.2295	(247)	6.2320	(691)	(938)
10			July	-	-	3	10	0.05	3,635	177	2.2295	395	6.2320	1,105	1,500
11			August	-	7	-	-	0.05	3,610	167	2.2295	372	6.2320	1,039	1,410
12			September	26	65	-	7	0.31	3,828	1,110	2.2295	2,475	6.2320	6,919	9,394
13			October	423	287	26	65	(0.63)	3,595	(2,248)	2.2295	(5,012)	6.2320	(14,009)	(19,021)
14			November	729	650	423	287	(1.47)	3,659	(5,374)	2.2295	(11,982)	6.2320	(33,492)	(45,473)
15			December	943	1,025	729	650	(0.01)	3,686	(35)	2.2295	(79)	6.2320	(221)	(299)
16			Total	5,217	5,294	5,112	5,294	1.78	3,659	6,671		14,873		41,573	56,445
17		KCI			0.00463		0.00847								
18			January	949	1,182	854	1,047	2.71	2,305	6,255	2.2295	13,946	6.2320	38,983	52,930
19			February	777	897	949	1,182	2.53	2,295	5,804	2.2295	12,940	6.2320	36,171	49,111
20			March	765	658	777	897	0.52	2,320	1,207	2.2295	2,692	6.2320	7,525	10,216
21			April	283	331	765	658	(0.98)	2,334	(1,596)	2.2295	(3,558)	6.2320	(9,945)	(13,502)
22			May	150	124	283	331	0.29	2,329	666	2.2295	1,485	6.2320	4,151	5,635
23			June	-	6	150	124	(0.18)	2,298	(421)	2.2295	(938)	6.2320	(2,622)	(3,560)
24			July	-	-	-	6	0.07	2,262	153	2.2295	342	6.2320	955	1,297
25			August	-	7	-	-	0.03	2,262	74	2.2295	165	6.2320	461	626
26			September	14	58	-	7	0.26	2,263	595	2.2295	1,328	6.2320	3,711	5,038
27			October	457	269	14	58	(0.50)	2,305	(1,149)	2.2295	(2,561)	6.2320	(7,160)	(9,721)
28			November	696	668	457	269	(1.73)	2,410	(4,172)	2.2295	(9,301)	6.2320	(25,998)	(35,299)
29			December	876	1,047	696	688	0.54	2,442	1,314	2.2295	2,930	6.2320	8,191	11,121
30			Total	4,969	5,249	4,947	5,249	3.85	2,320	8,733		19,470		54,424	73,894
31		Lexington			0.00413		0.01074								
32			January	918	1,193	792	1,060	4.01	4,424	17,759	2.2295	39,595	6.2320	110,678	150,272
33			February	773	916	918	1,193	3.54	4,401	15,598	2.2295	34,776	6.2320	97,208	131,984
34			March	781	684	773	916	1.14	4,434	5,033	2.2295	11,221	6.2320	31,366	42,588
35			April	310	345	781	684	(0.90)	4,401	(3,949)	2.2295	(8,803)	6.2320	(24,608)	(33,411)
36			May	168	127	310	345	0.21	4,362	907	2.2295	2,022	6.2320	5,653	7,675
37			June	-	8	168	127	(0.40)	4,366	(1,780)	2.2295	(3,924)	6.2320	(10,970)	(14,894)
38			July	-	-	-	8	0.10	4,380	423	2.2295	944	6.2320	2,638	3,582
39			August	-	8	-	-	0.03	4,387	144	2.2295	321	6.2320	897	1,218
40			September	23	59	-	8	0.23	4,383	1,028	2.2295	2,293	6.2320	6,409	8,702
41			October	435	286	23	59	(0.23)	4,351	(996)	2.2295	(2,220)	6.2320	(6,206)	(8,426)
42			November	675	675	435	286	(1.80)	4,363	(6,982)	2.2295	(15,566)	6.2320	(43,512)	(59,078)
43			December	852	1,060	675	675	0.86	4,409	3,788	2.2295	8,446	6.2320	23,610	32,056
44			Total	4,935	5,362	4,875	5,362	6.99	4,389	30,995		69,104		193,165	262,269
45		Maryville			0.00573		0.00809								
46			January	975	1,222	854	1,062	3.10	4,587	14,208	2.2295	31,676	6.2320	88,544	120,220
47			February	811	938	975	1,222	2.73	4,569	12,455	2.2295	27,769	6.2320	77,622	105,391
48			March	837	691	811	938	0.19	4,571	877	2.2295	1,956	6.2320	5,468	7,425
49			April	341	372	837	691	(1.00)	4,559	(4,578)	2.2295	(10,206)	6.2320	(28,528)	(38,734)
50			May	174	134	341	372	0.02	4,476	96	2.2295	218	6.2320	610	828
51			June	-	10	174	134	(0.27)	4,459	(1,186)	2.2295	(2,646)	6.2320	(7,405)	(10,054)
52			July	-	-	-	10	0.08	4,380	354	2.2295	790	6.2320	2,209	2,999
53			August	-	7	-	-	0.04	4,347	174	2.2295	388	6.2320	1,086	1,474
54			September	25	76	-	7	0.35	4,321	1,506	2.2295	3,359	6.2320	9,388	12,747
55			October	454	293	25	76	(0.51)	4,350	(2,214)	2.2295	(4,936)	6.2320	(13,798)	(18,734)
56			November	734	688	454	293	(1.97)	4,440	(8,954)	2.2295	(15,505)	6.2320	(43,341)	(58,846)
57			December	895	1,062	734	688	0.58	4,523	2,641	2.2295	5,887	6.2320	16,456	22,343
58			Total	5,246	5,493	5,205	5,493	3.74	4,465	17,380		38,748		108,310	147,058
59		Nevada			0.00525		0.00964								
60			January	915	1,105	770	954	2.77	3,350	9,290	2.2295	20,712	6.2320	57,896	78,608
61			February	752	820	915	1,105	2.19	3,337	7,306	2.2295	16,289	6.2320	45,531	61,820
62			March	752	580	752	820	(0.25)	3,381	(842)	2.2295	(1,877)	6.2320	(5,246)	(7,122)
63			April	241	294	752	580	(1.38)	3,371	(4,650)	2.2295	(10,368)	6.2320	(28,981)	(39,349)
64			May	136	106	241	294	0.35	3,343	1,181	2.2295	2,632	6.2320	7,359	9,991
65			June	3	8	136	106	(0.26)	3,343	(879)	2.2295	(1,960)	6.2320	(5,478)	(7,438)
66			July	-	-	3	8	0.05	3,330	161	2.2295	358	6.2320	1,000	1,358
67			August	-	5	-	-	0.03	3,369	89	2.2295	198	6.2320	552	750
68			September	10	55	-	5	0.28	3,323	847	2.2295	2,110	6.2320	5,899	8,010
69			October	370	224	10	55	(0.33)	3,308	(1,105)	2.2295	(2,463)	6.2320	(6,885)	(9,348)
70			November	635	602	370	224	(1.58)	3,352	(5,300)	2.2295	(11,816)	6.2320	(33,030)	(44,846)
71			December	669	954	635	602	0.13	3,344	431	2.2295	961	6.2320	2,685	3,646
72			Total	4,683	4,753	4,584	4,753	2.00	3,346	6,628		14,776		41,304	56,080
73		Sedalia			0.00714		0.00724								
74			January	974	1,169	885	1,015	2.48	9,895	24,517	2.2295	54,660	6.2320	152,790	207,450
75			February	806	907	974	1,169	2.13	9,879	21,064	2.2295	46,961	6.2320	131,269	178,230
76			March	824	674	806	907	(0.34)	9,935	(3,380)	2.2295	(7,535)	6.2320	(21,061)	(28,596)
77			April	289	356	824	674	(0.61)	9,898	(6,008)	2.2295	(13,395)	6.2320	(37,444)	(50,839)
78			May	181	143	289	356	0.21	9,860	2,105	2.2295	4,693	6.2320	13,119	17,812
79			June	5	12	181	143	(0.22)	9,800	(2,205)	2.2295	(4,916)	6.2320	(13,741)	(18,657)
80			July	-	-	5	12	0.05	9,753	494	2.2295	1,101	6.2320	3,079	4,180
81			August	-	6	-	-	0.06	9,729	556	2.2295	1,239	6.2320	3,463	4,702
82			September	27	72	-	6	0.38	9,537	3,654	2.2295	8,147	6.2320	22,773	30,920
83			October	430	295	27	72	(0.64)	9,683	(6,180)	2.2295	(13,779)	6.2320	(38,517)	(52,296)
84			November	749	648	430	295	(1.70)	9,783	(16,612)	2.2295	(37,035)	6.2320	(103,524)	(140,559)
85			December	933	1,015	749	648	(0.15)	9,820	(1,427)	2.2295	(3,182)	6.2320	(8,896)	(12,078)
86			Total	5,218	5,299	5,150	5,299	1.66	9,806	16,577		36,959		103,311	140,270

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
				HDD		HDD									
Line	Customer	Weather		Current Month		Previous Month		Adjustment	2002	Adjusted	Margin		Cost of Gas		Total
No.	Classification	Station	Month	Actual	Normal	Actual	Normal		# of Cust.	Units					Adjustment
								Mcf/cust.		Mcf	$/Mcf	$	$/Mcf	$	$
										[I]X[J]		[K]X[L]	(1), (2), (3)	[K]X[N]	[M]+[O]
87	Residential Cont.														
88		Northern System - (MO002)													
89		Brookfield			0.00573		0.00903								
90			January	1,021	1,298	887	1,134	3.81	3,032	11,537	2.2295	25,722	6.0603	69,918	95,640
91			February	852	994	1,021	1,298	3.30	3,026	9,981	2.2295	22,252	6.0603	60,488	82,740
92			March	866	748	852	994	0.59	3,023	1,798	2.2295	4,009	6.0603	10,898	14,908
93			April	366	417	866	748	(0.80)	3,014	(2,420)	2.2295	(5,395)	6.0603	(14,665)	(20,060)
94			May	200	167	366	417	0.26	2,992	758	2.2295	1,691	6.0603	4,595	6,286
95			June	-	13	200	167	(0.22)	2,949	(657)	2.2295	(1,465)	6.0603	(3,982)	(5,447)
96			July	-	-	-	13	0.12	2,876	338	2.2295	753	6.0603	2,046	2,798
97			August	2	10	-	-	0.05	2,852	131	2.2295	291	6.0603	792	1,083
98			September	23	82	2	10	0.41	2,841	1,165	2.2295	2,598	6.0603	7,061	9,659
99			October	464	321	23	82	(0.29)	2,853	(817)	2.2295	(1,821)	6.0603	(4,949)	(6,770)
100			November	778	748	464	321	(1.48)	2,937	(4,297)	2.2295	(9,580)	6.0603	(26,040)	(35,619)
101			December	948	1,134	778	748	0.79	2,968	2,358	2.2295	5,256	6.0603	14,288	19,544
102			Total	5,522	5,928	5,461	5,928	6.54	2,946	19,875		44,312		120,451	164,763
103		Chillicothe			0.00579		0.00749								
104			January	1,041	1,274	905	1,110	2.88	3,011	8,685	2.2295	19,363	6.0603	52,633	71,995
105			February	863	982	1,041	1,274	2.43	3,053	7,430	2.2295	16,568	6.0603	45,031	61,598
106			March	869	728	863	982	0.07	3,065	228	2.2295	509	6.0603	1,385	1,894
107			April	362	390	869	728	(0.89)	3,018	(2,697)	2.2295	(6,013)	6.0603	(16,345)	(22,358)
108			May	192	151	362	390	(0.03)	2,965	(82)	2.2295	(184)	6.0603	(499)	(682)
109			June	-	10	192	151	(0.25)	2,922	(726)	2.2295	(1,623)	6.0603	(4,411)	(6,034)
110			July	-	-	-	10	0.07	2,852	214	2.2295	476	6.0603	1,294	1,770
111			August	2	10	-	-	0.05	2,810	130	2.2295	290	6.0603	789	1,079
112			September	28	74	2	10	0.33	2,811	917	2.2295	2,045	6.0603	5,559	7,603
113			October	478	316	28	74	(0.59)	2,830	(1,680)	2.2295	(3,746)	6.0603	(10,182)	(13,928)
114			November	790	741	478	316	(1.50)	2,946	(4,410)	2.2295	(9,831)	6.0603	(26,724)	(36,555)
115			December	973	1,110	790	741	0.43	3,006	1,282	2.2295	2,858	6.0603	7,769	10,627
116			Total	5,598	5,786	5,530	5,786	3.01	2,941	9,290		20,711		56,299	77,009
117		Salisbury			0.00529		0.00962								
118			January	974	1,247	843	1,084	3.76	1,365	5,135	2.2295	11,448	6.0603	31,118	42,567
119			February	814	954	974	1,247	3.37	1,371	4,615	2.2295	10,290	6.0603	27,970	38,259
120			March	823	713	814	954	0.76	1,373	1,050	2.2295	2,342	6.0603	6,365	8,707
121			April	358	379	823	713	(0.95)	1,367	(1,295)	2.2295	(2,886)	6.0603	(7,846)	(10,732)
122			May	185	139	358	379	(0.04)	1,330	(55)	2.2295	(122)	6.0603	(332)	(455)
123			June	-	9	185	139	(0.39)	1,313	(518)	2.2295	(1,156)	6.0603	(3,142)	(4,298)
124			July	-	-	-	9	0.09	1,295	112	2.2295	250	6.0603	679	929
125			August	-	10	-	-	0.05	1,276	67	2.2295	150	6.0603	409	558
126			September	25	74	-	10	0.36	1,268	451	2.2295	1,004	6.0603	2,730	3,735
127			October	450	314	25	74	(0.25)	1,255	(314)	2.2295	(699)	6.0603	(1,900)	(2,599)
128			November	746	699	450	314	(1.58)	1,310	(2,038)	2.2295	(4,547)	6.0603	(12,359)	(16,906)
129			December	930	1,084	746	699	0.36	1,328	481	2.2295	1,073	6.0603	2,916	3,988
130			Total	5,305	5,622	5,218	5,622	5.56	1,322	7,691		17,147		46,609	63,756
131		Spickard			0.00800		0.00540								
132			January	1,083	1,367	950	1,212	3.69	2,027	7,472	2.2295	16,660	6.0603	45,285	61,945
133			February	918	1,062	1,083	1,367	2.69	2,025	5,439	2.2295	12,127	6.0603	32,963	45,090
134			March	900	809	918	1,062	0.05	2,025	103	2.2295	229	6.0603	621	850
135			April	407	459	900	809	(0.08)	2,033	(155)	2.2295	(345)	6.0603	(937)	(1,281)
136			May	231	192	407	459	(0.03)	1,949	(60)	2.2295	(134)	6.0603	(364)	(498)
137			June	1	24	231	192	(0.03)	1,919	(52)	2.2295	(115)	6.0603	(313)	(427)
138			July	-	2	1	24	0.14	1,828	256	2.2295	572	6.0603	1,554	2,126
139			August	3	21	-	2	0.15	1,805	279	2.2295	623	6.0603	1,692	2,315
140			September	45	114	3	21	0.65	1,786	1,159	2.2295	2,584	6.0603	7,024	9,608
141			October	507	385	45	114	(0.60)	1,853	(1,116)	2.2295	(2,489)	6.0603	(6,766)	(9,255)
142			November	833	798	507	385	(0.94)	1,965	(1,846)	2.2295	(4,116)	6.0603	(11,189)	(15,306)
143			December	1,003	1,212	833	798	1.48	1,995	2,956	2.2295	6,591	6.0603	17,916	24,507
144			Total	5,931	6,445	5,678	6,445	7.17	1,934	14,436		32,185		87,488	119,673
145		Eastern System - (MO003)													
146		Rolla			-		0.01100								
147			January	900	1,111	764	972	2.29	3,799	8,692	2.2295	19,379	9.9820	86,591	105,970
148			February	779	837	900	1,111	2.32	3,803	8,827	2.2295	19,679	9.9820	87,932	107,612
149			March	787	627	779	837	0.64	3,824	2,440	2.2295	5,439	9.9820	24,304	29,744
150			April	236	298	787	627	(1.54)	3,759	(5,769)	2.2295	(12,906)	9.9820	(57,669)	(70,575)
151			May	124	111	236	298	0.68	3,583	2,444	2.2295	5,448	9.9820	24,343	29,791
152			June	5	7	124	111	(0.14)	3,457	(494)	2.2295	(1,102)	9.9820	(4,925)	(6,027)
153			July	-	-	5	7	0.02	3,339	73	2.2295	164	9.9820	732	896
154			August	-	4	-	-	-	3,298	-	2.2295	-	9.9820	-	-
155			September	13	48	-	4	0.04	3,305	145	2.2295	324	9.9820	1,449	1,773
156			October	362	258	13	48	0.39	3,350	1,290	2.2295	2,875	9.9820	12,849	15,724
157			November	663	603	362	258	(1.14)	3,599	(4,117)	2.2295	(9,179)	9.9820	(41,016)	(50,196)
158			December	880	972	663	603	(0.99)	3,667	(2,420)	2.2295	(5,396)	9.9820	(24,110)	(29,506)
159			Total	4,729	4,876	4,613	4,876	2.89	3,565	11,060		24,725		110,480	135,206

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
				HDD		HDD									
Line	Customer	Weather		Current Month		Previous Month		Adjustment	2002	Adjusted	Margin		Cost of Gas		Total
No.	Classification	Station	Month	Actual	Normal	Actual	Normal	Mcf/cust.	# of Cust.	Units	$/Mcf	$	$/Mcf	$	Adjustment
										Mcf					$
										[I]*[J]=[J]		[K]*[L]	(1), (2), (3)	[K]*[N]	[M]+[O]
160	Commercial Firm (4)														
161		Southern System - (MO061)													
162		Clinton			0.01511		0.02136								
163			January	997	1,174	838	1,025	6.67	496	3,308	2.0726	6,856	6.2320	20,614	27,469
164			February	833	903	997	1,174	4.84	471	2,279	2.0726	4,723	6.2320	14,202	18,925
165			March	816	673	833	903	(0.67)	495	(329)	2.0726	(683)	6.2320	(2,053)	(2,736)
166			April	288	352	816	673	(2.09)	493	(1,029)	2.0726	(2,133)	6.2320	(6,413)	(8,545)
167			May	159	148	288	352	1.20	491	590	2.0726	1,222	6.2320	3,674	4,896
168			June	3	10	159	148	(0.13)	478	(62)	2.0726	(128)	6.2320	(385)	(513)
169			July	-	-	3	10	0.15	473	71	2.0726	147	6.2320	441	587
170			August	-	7	-	-	0.11	475	50	2.0726	104	6.2320	313	417
171			September	28	65	-	7	0.74	473	349	2.0726	724	6.2320	2,178	2,902
172			October	423	287	28	65	(1.22)	471	(576)	2.0726	(1,193)	6.2320	(3,587)	(4,780)
173			November	729	650	423	287	(4.10)	485	(1,988)	2.0726	(4,120)	6.2320	(12,388)	(16,508)
174			December	943	1,025	729	650	(0.45)	484	(217)	2.0726	(450)	6.2320	(1,353)	(1,802)
175			Total	5,217	5,294	5,112	5,294	5.05	482	2,446		5,069		15,243	20,313
176		KCI			0.01352		0.02885								
177			January	949	1,182	854	1,047	8.72	316	2,755	2.0726	5,710	6.2320	17,168	22,879
178			February	777	887	949	1,182	8.34	321	2,679	2.0726	5,552	6.2320	16,693	22,244
179			March	765	658	777	897	2.02	316	637	2.0726	1,320	6.2320	3,969	5,289
180			April	283	331	765	658	(2.44)	318	(775)	2.0726	(1,607)	6.2320	(4,832)	(6,438)
181			May	150	124	283	331	1.03	316	327	2.0726	677	6.2320	2,035	2,712
182			June	-	8	150	124	(0.64)	313	(201)	2.0726	(415)	6.2320	(1,252)	(1,669)
183			July	-	-	-	8	0.23	314	72	2.0726	150	6.2320	452	602
184			August	-	7	-	-	0.09	312	30	2.0726	61	6.2320	184	245
185			September	14	56	-	7	0.80	316	253	2.0726	525	6.2320	1,579	2,104
186			October	457	269	14	58	(1.27)	316	(402)	2.0726	(833)	6.2320	(2,506)	(3,339)
187			November	698	668	457	269	(5.83)	316	(1,842)	2.0726	(3,818)	6.2320	(11,480)	(15,298)
188			December	876	1,047	698	668	1.45	321	464	2.0726	962	6.2320	2,894	3,856
189			Total	4,969	5,249	4,947	5,249	12.50	316	3,996		8,282		24,905	33,187
190		Lexington			0.01997		0.03822								
191			January	918	1,193	792	1,060	15.73	527	8,292	2.0726	17,186	6.2320	51,677	68,863
192			February	773	916	918	1,193	13.37	517	6,910	2.0726	14,322	6.2320	43,065	57,388
193			March	781	684	773	916	3.53	532	1,877	2.0726	3,890	6.2320	11,698	15,589
194			April	310	345	781	684	(3.01)	535	(1,609)	2.0726	(3,336)	6.2320	(10,030)	(13,366)
195			May	168	127	310	345	0.52	526	273	2.0726	566	6.2320	1,701	2,267
196			June	-	9	168	127	(1.39)	522	(724)	2.0726	(1,501)	6.2320	(4,513)	(6,014)
197			July	-	-	-	9	0.34	520	179	2.0726	371	6.2320	1,115	1,485
198			August	-	5	-	-	0.16	514	82	2.0726	170	6.2320	512	682
199			September	23	59	-	8	1.02	508	521	2.0726	1,079	6.2320	3,244	4,323
200			October	435	286	23	59	(1.60)	512	(819)	2.0726	(1,697)	6.2320	(5,104)	(6,801)
201			November	675	675	435	286	(5.69)	502	(2,859)	2.0726	(5,925)	6.2320	(17,816)	(23,741)
202			December	852	1,060	675	675	4.15	517	2,147	2.0726	4,451	6.2320	13,383	17,834
203			Total	4,935	5,362	4,875	5,362	27.14	519	14,270		29,576		88,932	118,508
204		Marshall			0.02684		0.02521								
205			January	975	1,222	854	1,062	12.37	588	7,272	2.0726	15,072	6.2320	45,319	60,390
206			February	811	938	975	1,222	9.89	585	5,785	2.0726	11,991	6.2320	36,055	48,045
207			March	837	691	811	938	(1.01)	581	(586)	2.0726	(1,215)	6.2320	(3,653)	(4,868)
208			April	341	372	837	691	(2.79)	581	(1,619)	2.0726	(3,356)	6.2320	(10,090)	(13,445)
209			May	174	134	341	372	(0.37)	534	(199)	2.0726	(412)	6.2320	(1,238)	(1,650)
210			June	-	10	174	134	(0.72)	551	(397)	2.0726	(822)	6.2320	(2,472)	(3,295)
211			July	-	-	-	10	0.25	545	137	2.0726	285	6.2320	856	1,141
212			August	-	7	-	-	0.20	545	110	2.0726	228	6.2320	685	914
213			September	25	76	-	7	1.65	546	899	2.0726	1,864	6.2320	5,605	7,469
214			October	454	293	25	76	(3.36)	560	(1,880)	2.0726	(3,897)	6.2320	(11,718)	(15,614)
215			November	734	688	454	293	(5.39)	584	(3,145)	2.0726	(6,518)	6.2320	(19,600)	(26,119)
216			December	895	1,062	734	688	3.66	587	2,148	2.0726	4,449	6.2320	13,377	17,825
217			Total	5,246	5,493	5,205	5,493	14.38	566	8,525		17,668		53,126	70,793
218		Nevada			0.00827		0.03540								
219			January	915	1,105	770	954	8.09	513	4,148	2.0726	8,596	6.2320	25,848	34,445
220			February	752	820	915	1,105	7.29	509	3,710	2.0726	7,689	6.2320	23,120	30,809
221			March	752	580	752	820	0.98	517	509	2.0726	1,055	6.2320	3,172	4,227
222			April	241	294	752	580	(5.65)	519	(2,933)	2.0726	(6,078)	6.2320	(18,276)	(24,354)
223			May	136	106	241	294	1.63	517	842	2.0726	1,745	6.2320	5,248	6,990
224			June	3	6	136	106	(1.02)	516	(527)	2.0726	(1,092)	6.2320	(3,282)	(4,374)
225			July	-	-	3	6	0.18	517	92	2.0726	190	6.2320	570	760
226			August	-	5	-	-	0.04	509	21	2.0726	44	6.2320	131	175
227			September	10	55	-	5	0.55	508	276	2.0726	576	6.2320	1,732	2,308
228			October	370	224	10	55	0.39	504	194	2.0726	403	6.2320	1,211	1,613
229			November	635	602	370	224	(5.44)	508	(2,764)	2.0726	(5,729)	6.2320	(17,227)	(22,956)
230			December	669	954	635	602	(0.47)	514	(239)	2.0726	(496)	6.2320	(1,490)	(1,986)
231			Total	4,683	4,753	4,584	4,753	6.56	512	3,330		6,903		20,755	27,658
232		Sedalia			0.01992		0.03487								
233			January	974	1,169	865	1,015	9.11	1,143	10,418	2.0726	21,593	6.2320	64,927	86,520
234			February	806	907	974	1,169	6.81	1,111	9,790	2.0726	20,290	6.2320	61,009	81,299
235			March	624	674	806	907	0.53	1,161	620	2.0726	1,285	6.2320	3,863	5,147
236			April	289	356	624	674	(3.90)	1,157	(4,508)	2.0726	(9,342)	6.2320	(28,091)	(37,433)
237			May	181	143	289	356	1.58	1,149	1,815	2.0726	3,761	6.2320	11,309	15,070
238			June	5	12	181	143	(1.19)	1,129	(1,339)	2.0726	(2,774)	6.2320	(8,342)	(11,116)
239			July	-	-	5	12	0.24	1,128	275	2.0726	571	6.2320	1,716	2,287
240			August	-	8	-	-	0.16	1,132	180	2.0726	374	6.2320	1,124	1,498
241			September	27	72	-	8	1.18	1,115	1,311	2.0726	2,716	6.2320	8,167	10,883
242			October	430	295	27	72	(1.12)	1,117	(1,251)	2.0726	(2,593)	6.2320	(7,797)	(10,390)
243			November	748	648	430	295	(6.72)	1,145	(7,694)	2.0726	(15,946)	6.2320	(47,947)	(63,893)
244			December	933	1,015	749	648	(1.89)	1,140	(2,153)	2.0726	(4,462)	6.2320	(13,416)	(17,878)
245			Total	5,218	5,299	5,150	5,299	6.81	1,136	7,465		15,472		46,522	61,994

[A] Line No.	[B] Customer Classification	[C] Weather Station	[D] Month	[E] HDD Current Month Actual	[F] HDD Current Month Normal	[G] HDD Previous Month Actual	[H] HDD Previous Month Normal	[I] Adjustment Mcf/cust.	[J] 2002 # of Cust.	[K] Adjusted Units Mcf [I]X[J]	[L] Margin $/Mcf	[M] Margin $ [K]X[L]	[N] Cost of Gas $/Mcf (1), (2), (3)	[O] Cost of Gas $ [K]X[N]	[P] Total Adjustment $ [M]+[O]
246	Commercial Firm Cont.														
247		Northern System - (MO662)													
248		Brookfield			0.01519		0.02503								
249			January	1,021	1,206	887	1,134	10.38	380	3,937	2.1202	8,346	6.0603	23,858	32,204
250			February	852	994	1,021	1,206	9.04	384	3,471	2.1202	7,360	6.0603	21,038	28,398
251			March	866	748	852	994	1.73	384	665	2.1202	1,410	6.0603	4,029	5,439
252			April	368	417	866	748	(2.26)	384	(868)	2.1202	(1,839)	6.0603	(5,258)	(7,097)
253			May	200	167	368	417	0.73	373	270	2.1202	572	6.0603	1,635	2,207
254			June	-	13	200	167	(0.63)	364	(229)	2.1202	(485)	6.0603	(1,386)	(1,872)
255			July	-	-	-	13	0.33	358	118	2.1202	247	6.0603	706	953
256			August	2	10	-	-	0.12	355	43	2.1202	91	6.0603	261	353
257			September	23	82	2	10	1.10	356	390	2.1202	828	6.0603	2,366	3,193
258			October	464	321	23	82	(0.70)	357	(248)	2.1202	(526)	6.0603	(1,505)	(2,031)
259			November	778	748	464	321	(4.03)	384	(1,549)	2.1202	(3,285)	6.0603	(9,390)	(12,675)
260			December	948	1,134	778	748	2.07	384	797	2.1202	1,689	6.0603	4,826	6,516
261			Total	5,522	5,928	5,461	5,928	17.86	372	6,795		14,407		41,162	55,569
262		Chillicothe			0.02420		0.02474								
263			January	1,041	1,274	905	1,110	10.71	478	5,120	2.1202	10,854	6.0603	31,028	41,880
264			February	853	962	1,041	1,274	8.64	479	4,141	2.1202	8,779	6.0603	25,093	33,872
265			March	889	728	853	962	(0.47)	482	(226)	2.1202	(478)	6.0603	(1,367)	(1,846)
266			April	382	390	889	728	(2.81)	486	(1,349)	2.1202	(2,860)	6.0603	(8,176)	(11,037)
267			May	192	151	382	390	(0.30)	489	(145)	2.1202	(298)	6.0603	(851)	(1,149)
268			June	-	10	192	151	(0.77)	458	(354)	2.1202	(750)	6.0603	(2,144)	(2,894)
269			July	-	-	-	10	0.25	444	110	2.1202	233	6.0603	665	899
270			August	2	10	-	-	0.19	443	86	2.1202	182	6.0603	520	702
271			September	28	74	2	10	1.31	440	577	2.1202	1,223	6.0603	3,496	4,719
272			October	478	316	28	74	(2.78)	449	(1,249)	2.1202	(2,649)	6.0603	(7,571)	(10,220)
273			November	790	741	478	316	(5.19)	473	(2,457)	2.1202	(5,208)	6.0603	(14,888)	(20,096)
274			December	973	1,110	790	741	2.10	472	993	2.1202	2,105	6.0603	6,016	8,121
275			Total	5,598	5,786	5,530	5,786	10.88	464	5,250		11,132		31,819	42,951
276		Salisbury			0.01365		0.02828								
277			January	974	1,247	843	1,084	10.06	264	2,656	2.1202	5,631	6.0603	16,095	21,726
278			February	814	954	974	1,247	9.09	264	2,399	2.1202	5,085	6.0603	14,536	19,621
279			March	823	713	814	954	2.18	263	573	2.1202	1,214	6.0603	3,471	4,685
280			April	358	379	823	713	(2.60)	261	(680)	2.1202	(1,441)	6.0603	(4,119)	(5,560)
281			May	185	139	358	379	(0.08)	249	(19)	2.1202	(40)	6.0603	(115)	(155)
282			June	-	9	185	139	(1.09)	238	(258)	2.1202	(548)	6.0603	(1,566)	(2,114)
283			July	-	-	-	9	0.24	231	55	2.1202	116	6.0603	331	447
284			August	-	10	-	-	0.14	232	32	2.1202	67	6.0603	192	259
285			September	25	74	-	10	0.93	232	216	2.1202	458	6.0603	1,310	1,768
286			October	450	314	25	74	(0.57)	232	(132)	2.1202	(280)	6.0603	(800)	(1,079)
287			November	746	699	450	314	(4.22)	251	(1,058)	2.1202	(2,243)	6.0603	(6,413)	(8,656)
288			December	930	1,084	746	699	0.87	253	219	2.1202	465	6.0603	1,329	1,794
289			Total	5,305	5,622	5,218	5,622	14.94	248	4,002		8,484		24,252	32,736
290		Sprckard			0.02367		0.01994								
291			January	1,083	1,367	950	1,212	11.95	305	3,644	2.1202	7,725	6.0603	22,082	29,807
292			February	918	1,062	1,083	1,367	9.07	306	2,775	2.1202	5,885	6.0603	16,823	22,708
293			March	900	809	918	1,062	0.72	310	222	2.1202	472	6.0603	1,348	1,819
294			April	407	459	900	809	(0.58)	311	(182)	2.1202	(385)	6.0603	(1,100)	(1,485)
295			May	231	192	407	459	0.11	299	34	2.1202	72	6.0603	206	278
296			June	1	24	231	192	(0.23)	290	(68)	2.1202	(143)	6.0603	(410)	(553)
297			July	-	2	1	24	0.51	286	145	2.1202	307	6.0603	877	1,184
298			August	3	21	-	2	0.47	284	132	2.1202	281	6.0603	802	1,083
299			September	45	114	3	21	1.99	280	558	2.1202	1,183	6.0603	3,380	4,563
300			October	507	385	45	114	(1.51)	291	(440)	2.1202	(933)	6.0603	(2,666)	(3,599)
301			November	833	798	507	385	(3.26)	308	(1,004)	2.1202	(2,130)	6.0603	(6,087)	(8,217)
302			December	1,003	1,212	833	798	4.25	307	1,304	2.1202	2,766	6.0603	7,906	10,671
303			Total	5,931	6,448	5,878	6,445	23.47	298	7,122		15,099		43,160	58,259
304		Eastern System - (MO663)													
305		Rolla			-		0.04343								
306			January	900	1,111	764	972	9.03	472	4,264	2.1896	9,336	9.9620	42,476	51,812
307			February	779	837	900	1,111	9.16	473	4,334	2.1896	9,491	9.9620	43,180	52,671
308			March	767	627	779	837	2.52	469	1,181	2.1896	2,587	9.9620	11,769	14,356
309			April	236	298	767	627	(6.08)	471	(2,864)	2.1896	(6,271)	9.9620	(28,529)	(34,800)
310			May	124	111	236	298	2.69	458	1,233	2.1896	2,700	9.9620	12,286	14,986
311			June	5	7	124	111	(0.56)	451	(255)	2.1896	(558)	9.9620	(2,537)	(3,094)
312			July	-	-	5	7	0.09	438	38	2.1896	83	9.9620	379	462
313			August	-	4	-	-	-	433	-	2.1896	-	9.9620	-	-
314			September	13	48	-	4	0.17	435	76	2.1896	165	9.9620	753	918
315			October	362	258	13	48	1.52	437	664	2.1896	1,454	9.9620	6,617	8,072
316			November	663	603	362	258	(4.52)	464	(2,095)	2.1896	(4,589)	9.9620	(20,878)	(25,467)
317			December	880	972	663	803	(2.61)	479	(1,248)	2.1896	(2,733)	9.9620	(12,434)	(15,167)
318			Total	4,729	4,876	4,613	4,876	11.42	457	5,328		11,667		53,081	64,749

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
				HDD		HDD									
Line	Customer	Weather		Current Month		Previous Month		Adjustment	2002	Adjusted	Margin		Cost of Gas		Total
No.	Classification	Station	Month	Actual	Normal	Actual	Normal	Mcf/cust.	# of Cust.	Units Mcf	$/Mcf	$	$/Mcf	$	Adjustment $
										[I]X[J]		[K]X[L]	(1), (2), (3)	[K]X[N]	[M]+[O]
319	Industrial Firm														
320		Southern System - (MO951)													
321		Clinton			0.20300		0.35600								
322			January	997	1,174	838	1,025	102.50	8	820	1.3988	1,147	6.2320	5,110	6,257
323			February	833	903	997	1,174	77.22	7	541	1.3988	756	6.2320	3,369	4,125
324			March	816	673	833	903	(4.11)	8	(33)	1.3988	(46)	6.2320	(205)	(251)
325			April	288	352	816	673	(37.92)	8	(303)	1.3988	(424)	6.2320	(1,890)	(2,315)
326			May	159	148	288	352	20.55	8	164	1.3988	230	6.2320	1,025	1,255
327			June	3	10	159	148	(2.50)	8	(20)	1.3988	(28)	6.2320	(124)	(152)
328			July	-	-	3	10	2.49	8	20	1.3988	28	6.2320	124	152
329			August	-	7	-	-	1.42	8	11	1.3988	16	6.2320	71	87
330			September	26	65	-	7	10.41	8	83	1.3988	116	6.2320	519	635
331			October	423	287	26	65	(13.72)	8	(110)	1.3988	(154)	6.2320	(684)	(838)
332			November	729	658	423	287	(64.45)	7	(451)	1.3988	(631)	6.2320	(2,812)	(3,443)
333			December	943	1,025	729	658	(11.48)	7	(80)	1.3988	(112)	6.2320	(501)	(613)
334			Total	5,217	5,294	5,112	5,294	80.42	8	642		898		4,002	4,900
335		Lexington			0.44500		0.92300								
336			January	918	1,193	792	1,060	369.74	1	370	1.3988	517	6.2320	2,304	2,821
337			February	773	916	918	1,193	317.46	1	317	1.3988	444	6.2320	1,978	2,422
338			March	781	684	773	916	88.82	1	89	1.3988	124	6.2320	554	678
339			April	310	345	781	684	(73.95)	1	(74)	1.3988	(103)	6.2320	(461)	(564)
340			May	168	127	310	345	14.06	1	14	1.3988	20	6.2320	88	107
341			June	-	9	168	127	(33.84)	1	(34)	1.3988	(47)	6.2320	(211)	(258)
342			July	-	-	-	9	8.31	1	8	1.3988	12	6.2320	52	63
343			August	-	8	-	-	3.56	1	4	1.3988	5	6.2320	22	27
344			September	23	59	-	8	23.40	1	23	1.3988	33	6.2320	146	179
345			October	435	286	23	59	(33.08)	1	(33)	1.3988	(46)	6.2320	(206)	(252)
346			November	675	675	435	286	(137.53)	1	(138)	1.3988	(192)	6.2320	(857)	(1,049)
347			December	852	1,060	675	675	92.56	1	93	1.3988	129	6.2320	577	706
348			Total	4,935	5,362	4,875	5,362	639.52	1	640		895		3,985	4,880
349		Sedalia			-		0.45800								
350			January	974	1,169	865	1,015	68.70	7	481	1.3988	673	6.2320	2,997	3,670
351			February	808	907	974	1,169	89.31	7	625	1.3988	874	6.2320	3,896	4,771
352			March	824	674	808	907	46.26	7	324	1.3988	453	6.2320	2,018	2,471
353			April	289	356	824	674	(68.70)	7	(481)	1.3988	(673)	6.2320	(2,997)	(3,670)
354			May	181	143	289	356	30.69	7	215	1.3988	300	6.2320	1,339	1,639
355			June	5	12	181	143	(17.40)	6	(104)	1.3988	(146)	6.2320	(651)	(797)
356			July	-	-	5	12	3.21	6	19	1.3988	27	6.2320	120	147
357			August	-	8	-	-	-	6	-	1.3988	-	6.2320	-	-
358			September	27	72	-	8	3.66	6	22	1.3988	31	6.2320	137	168
359			October	430	295	27	72	20.81	6	124	1.3988	173	6.2320	771	944
360			November	749	648	430	295	(61.83)	7	(433)	1.3988	(605)	6.2320	(2,697)	(3,303)
361			December	933	1,015	749	648	(46.26)	7	(324)	1.3988	(453)	6.2320	(2,018)	(2,471)
362			Total	5,218	5,399	5,196	5,289	68.24	7	468		654		2,914	3,568
363		Northern System - (MO952)													
364		Brookfield			-		0.13800								
365			January	1,021	1,296	887	1,134	34.09	6	205	2.0412	417	6.0603	1,239	1,657
366			February	852	994	1,021	1,296	37.95	6	228	2.0412	465	6.0603	1,380	1,845
367			March	866	746	852	994	19.50	6	118	2.0412	240	6.0603	713	953
368			April	368	417	866	746	(16.56)	6	(99)	2.0412	(203)	6.0603	(602)	(805)
369			May	200	167	368	417	6.76	6	41	2.0412	83	6.0603	246	329
370			June	-	13	200	167	(4.55)	6	(23)	2.0412	(46)	6.0603	(138)	(184)
371			July	-	-	-	13	1.79	6	11	2.0412	22	6.0603	65	87
372			August	2	10	-	-	-	6	-	2.0412	-	6.0603	-	-
373			September	23	82	2	10	1.10	6	7	2.0412	14	6.0603	40	54
374			October	464	321	23	82	8.14	6	49	2.0412	100	6.0603	296	396
375			November	778	748	464	321	(19.73)	6	(119)	2.0412	(242)	6.0603	(716)	(959)
376			December	948	1,134	778	748	(4.14)	6	(25)	2.0412	(51)	6.0603	(151)	(201)
377			Total	5,522	5,928	5,461	5,928	64.45	6	391		799		2,371	3,170

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
				HDD		HDD									
Line	Customer	Weather		Current Month		Previous Month		Adjustment	2002	Adjusted	Margin		Cost of Gas		Total
No.	Classification	Station	Month	Actual	Normal	Actual	Normal	Mcf/cust.	# of Cust.	Units Mcf [I]X[J]	$/Mcf	$ [K]X[L]	$/Mcf (1), (2), (3)	$ [K]X[N]	Adjustment $ [M]+[O]
378	Large Volume Transportation														
379		Southern System - (MO501)													
380		Nevada			-			3.31500							
381			January	915	1,105	770	954	809.95	6	3,660	0.21166	775			775
382			February	752	820	915	1,105	628.85	6	3,779	0.21166	800			800
383			March	752	580	752	820	225.42	6	1,353	0.21166	286			286
384			April	241	294	752	580	(570.18)	6	(3,421)	0.21166	(724)			(724)
385			May	136	108	241	294	175.70	6	1,054	0.21166	223			223
386			June	3	8	136	106	(99.45)	6	(597)	0.21166	(126)			(126)
387			July	-	-	3	8	16.58	6	99	0.21166	21			21
388			August	-	5	-	-	-	6	-	0.21166	-			-
389			September	10	55	-	5	16.58	6	99	0.21166	21			21
390			October	370	224	10	55	149.18	6	895	0.21166	189			189
391			November	635	602	370	224	(483.99)	6	(2,904)	0.21166	(615)			(615)
392			December	869	954	635	602	(109.40)	6	(656)	0.21166	(139)			(139)
393			Total	4,683	4,753	4,584	4,753	560.24	6	3,361		711			711
394		Marshall			-			2.80100							
395			January	975	1,222	854	1,062	582.61	2	1,165	0.21166	247			247
396			February	811	938	975	1,222	691.85	2	1,384	0.21166	293			293
397			March	837	691	811	938	355.73	2	711	0.21166	151			151
398			April	341	372	837	691	(408.95)	2	(818)	0.21166	(173)			(173)
399			May	174	134	341	372	86.83	2	174	0.21166	37			37
400			June	-	10	174	134	(112.04)	2	(224)	0.21166	(47)			(47)
401			July	-	-	-	10	28.01	2	56	0.21166	12			12
402			August	-	7	-	-	-	2	-	0.21166	-			-
403			September	25	76	-	7	19.61	2	39	0.21166	8			8
404			October	454	293	25	76	142.85	2	286	0.21166	60			60
405			November	734	668	454	293	(450.95)	2	(902)	0.21166	(191)			(191)
406			December	895	1,062	734	688	(126.85)	2	(258)	0.21166	(55)			(55)
407			Total	5,246	5,493	5,205	5,493	806.69	2	1,613		341			341
408		Sedalia			-			1.71000							
409			January	974	1,169	865	1,015	256.50	11	2,822	0.21166	597			597
410			February	806	907	974	1,169	333.45	11	3,668	0.21166	776			776
411			March	824	674	806	907	172.71	11	1,900	0.21166	402			402
412			April	289	356	824	674	(256.50)	11	(2,822)	0.21166	(597)			(597)
413			May	181	143	289	356	114.57	11	1,260	0.21166	267			267
414			June	5	12	181	143	(84.96)	11	(715)	0.21166	(151)			(151)
415			July	-	-	5	12	11.97	11	132	0.21166	28			28
416			August	-	8	-	-	-	11	-	0.21166	-			-
417			September	27	72	-	8	13.68	11	150	0.21166	32			32
418			October	430	295	27	72	78.95	11	846	0.21166	179			179
419			November	749	648	430	295	(230.85)	11	(2,539)	0.21166	(537)			(537)
420			December	933	1,015	749	648	(172.71)	11	(1,900)	0.21166	(402)			(402)
421			Total	5,218	5,299	5,150	5,299	254.79	11	2,803		593			593
422		Clinton			-			1.77600							
423			January	997	1,174	838	1,025	332.11	4	1,328	0.21166	281			281
424			February	833	903	997	1,174	314.35	4	1,257	0.21166	266			266
425			March	816	673	833	903	124.32	4	497	0.21166	105			105
426			April	288	352	816	673	(253.97)	4	(1,016)	0.21166	(215)			(215)
427			May	159	148	288	352	113.66	4	455	0.21166	96			96
428			June	3	10	159	148	(19.54)	4	(78)	0.21166	(17)			(17)
429			July	-	-	3	10	12.43	4	50	0.21166	11			11
430			August	-	7	-	-	-	4	-	0.21166	-			-
431			September	26	65	-	7	12.43	4	50	0.21166	11			11
432			October	423	287	26	65	69.26	4	277	0.21166	59			59
433			November	729	650	423	287	(241.54)	4	(966)	0.21166	(204)			(204)
434			December	943	1,025	729	650	(140.30)	4	(561)	0.21166	(119)			(119)
435			Total	5,217	5,294	5,112	5,294	323.23	4	1,293		274			274
436		Northern System - (MO502)													
437		Chillicothe			-			19.50900							
438			January	1,041	1,274	905	1,110	3,999.35	6	23,996	0.21180	5,082			5,082
439			February	863	982	1,041	1,274	4,545.60	6	27,274	0.21180	5,777			5,777
440			March	869	728	863	982	2,321.57	6	13,929	0.21180	2,950			2,950
441			April	362	390	869	728	(2,750.77)	6	(16,505)	0.21180	(3,496)			(3,496)
442			May	192	151	362	390	546.25	6	3,278	0.21180	694			694
443			June	-	10	192	151	(799.67)	6	(4,799)	0.21180	(1,016)			(1,016)
444			July	-	-	-	10	195.09	6	1,171	0.21180	248			248
445			August	2	10	-	-	-	6	-	0.21180	-			-
446			September	28	74	2	10	156.07	6	936	0.21180	198			198
447			October	476	316	28	74	897.41	6	5,384	0.21180	1,140			1,140
448			November	790	741	476	316	(3,160.46)	6	(18,963)	0.21180	(4,016)			(4,016)
449			December	973	1,110	790	741	(955.94)	6	(5,736)	0.21180	(1,215)			(1,215)
450			Total	5,598	5,788	5,530	5,788	4,994.30	6	29,956		6,347			6,347
451		Eastern System - (MO503)													
452		Rolla			0.00000			0.00000							
453			January	900	1,111	764	972	-	1	-	0.24600	-			-
454			February	779	837	900	1,111	-	1	-	0.24600	-			-
455			March	767	627	779	837	-	1	-	0.24600	-			-
456			April	236	298	767	627	-	1	-	0.24600	-			-
457			May	124	111	236	298	-	1	-	0.24600	-			-
458			June	5	7	124	111	-	1	-	0.24600	-			-
459			July	-	-	5	7	-	1	-	0.24600	-			-
460			August	-	4	-	-	-	1	-	0.24600	-			-
461			September	13	48	-	4	-	1	-	0.24600	-			-
462			October	382	258	13	48	-	1	-	0.24600	-			-
463			November	663	603	382	258	-	1	-	0.24600	-			-
464			December	880	972	663	603	-	1	-	0.24600	-			-
465			Total	4,729	4,876	4,613	4,876	-	1	-		-			-

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
				HDD		HDD									
Line	Customer	Weather		Current Month		Previous Month		Adjustment	2002	Adjusted	Margin		Cost of Gas		Total
No.	Classification	Station	Month	Actual	Normal	Actual	Normal		# of Cust	Units					Adjustment
								Mcf/cust.		Mcf	$/Mcf	$	$/Mcf	$	
										[I]X[J]		[K]X[L]	(1), (2), (3)	[K]X[N]	[M]+[O]
466	Special Contract Customers														
467		Tyson Foods - (MO822)													
468		Sedalia			6.40600		-								
469			January	974	1,169	865	1,015	1,249.17	1	1,249	0.22000	275			275
470			February	806	907	974	1,169	847.01	1	847	0.22000	142			142
471			March	824	674	806	907	(960.80)	1	(961)	0.22000	(211)			(211)
472			April	289	356	824	674	429.20	1	429	0.22000	94			94
473			May	181	143	289	356	(243.43)	1	(243)	0.22000	(54)			(54)
474			June	5	12	181	143	44.84	1	45	0.22000	10			10
475			July	-	-	5	12	-	1	-	0.22000	-			-
476			August	-	8	-	-	51.25	1	51	0.22000	11			11
477			September	27	72	-	8	288.27	1	288	0.22000	63			63
478			October	430	295	27	72	(864.91)	1	(865)	0.22000	(190)			(190)
479			November	749	648	430	295	(647.01)	1	(647)	0.22000	(142)			(142)
480			December	933	1,015	749	648	525.29	1	525	0.22000	116			116
481			Total	5,218	5,299	5,150	5,299	516.89	1	519		114			114
482		Tyson Foods - (MO823)													
483		Sedalia			-		1.21900								
484			January	974	1,169	865	1,015	182.85	1	183	0.22000	40			40
485			February	806	907	974	1,169	237.71	1	238	0.22000	52			52
486			March	824	674	806	907	123.12	1	123	0.22000	27			27
487			April	289	356	824	674	(182.85)	1	(183)	0.22000	(40)			(40)
488			May	181	143	289	356	81.67	1	82	0.22000	18			18
489			June	5	12	181	143	(46.32)	1	(46)	0.22000	(10)			(10)
490			July	-	-	5	12	8.53	1	9	0.22000	2			2
491			August	-	8	-	-	-	1	-	0.22000	-			-
492			September	27	72	-	8	9.75	1	10	0.22000	2			2
493			October	430	295	27	72	54.66	1	55	0.22000	12			12
494			November	749	648	430	295	(164.57)	1	(165)	0.22000	(36)			(36)
495			December	933	1,015	749	648	(123.12)	1	(123)	0.22000	(27)			(27)
496			Total	5,218	5,299	5,150	5,299	181.63	1	182		40			40
497		Tyson Foods - (MO824)													
498		Sedalia			0.31300		1.21300								
499			January	974	1,169	865	1,015	242.99	1	243	0.22000	53			53
500			February	806	907	974	1,169	268.15	1	268	0.22000	59			59
501			March	824	674	806	907	75.56	1	76	0.22000	17			17
502			April	289	356	824	674	(160.98)	1	(161)	0.22000	(35)			(35)
503			May	181	143	289	356	69.38	1	69	0.22000	15			15
504			June	5	12	181	143	(43.90)	1	(44)	0.22000	(10)			(10)
505			July	-	-	5	12	8.49	1	8	0.22000	2			2
506			August	-	8	-	-	2.50	1	3	0.22000	1			1
507			September	27	72	-	8	23.79	1	24	0.22000	5			5
508			October	430	295	27	72	12.33	1	12	0.22000	3			3
509			November	749	648	430	295	(195.37)	1	(195)	0.22000	(43)			(43)
510			December	933	1,015	749	648	(96.80)	1	(97)	0.22000	(21)			(21)
511			Total	5,218	5,299	5,150	5,299	206.09	1	206		45			45
512		Phelps County - (MO830)													
513		Rolla			-		1.87700								
514			January	900	1,111	764	972	390.42	1	390	0.25000	98			98
515			February	779	837	900	1,111	396.05	1	396	0.25000	99			99
516			March	767	627	779	837	108.87	1	109	0.25000	27			27
517			April	236	298	767	627	(262.78)	1	(263)	0.25000	(66)			(66)
518			May	124	111	236	298	116.37	1	116	0.25000	29			29
519			June	5	7	124	111	(24.40)	1	(24)	0.25000	(6)			(6)
520			July	-	-	5	7	3.75	1	4	0.25000	1			1
521			August	-	4	-	-	-	1	-	0.25000	-			-
522			September	13	48	-	4	7.51	1	8	0.25000	2			2
523			October	362	298	13	48	55.70	1	56	0.25000	14			14
524			November	683	603	362	298	(195.21)	1	(195)	0.25000	(49)			(49)
525			December	880	972	683	603	(112.62)	1	(113)	0.25000	(28)			(28)
526			Total	4,729	4,876	4,613	4,876	493.65	1	494		125			125
527		University of Missouri TJ Hall - (MO831)													
528		Rolla			-		1.37400								
529			January	900	1,111	764	972	285.79	1	286	0.30000	86			86
530			February	779	837	900	1,111	289.91	1	290	0.30000	87			87
531			March	767	627	779	837	79.69	1	80	0.30000	24			24
532			April	236	298	767	627	(192.36)	1	(192)	0.30000	(58)			(58)
533			May	124	111	236	298	85.19	1	85	0.30000	26			26
534			June	5	7	124	111	(17.86)	1	(18)	0.30000	(5)			(5)
535			July	-	-	5	7	2.75	1	3	0.30000	1			1
536			August	-	4	-	-	-	1	-	0.30000	-			-
537			September	13	48	-	4	5.50	1	6	0.30000	2			2
538			October	362	298	13	48	48.09	1	48	0.30000	14			14
539			November	683	603	362	298	(142.90)	1	(143)	0.30000	(43)			(43)
540			December	880	972	683	603	(82.44)	1	(82)	0.30000	(25)			(25)
541			Total	4,729	4,876	4,613	4,876	361.36	1	361		108			108
542		Briggs & Stratton - (MO833)													
543		Rolla			-		4.19300								
544			January	900	1,111	764	972	872.14	1	872	0.25000	218			218
545			February	779	837	900	1,111	884.72	1	885	0.25000	221			221
546			March	767	627	779	837	243.19	1	243	0.25000	61			61
547			April	236	298	767	627	(587.02)	1	(587)	0.25000	(147)			(147)
548			May	124	111	236	298	259.97	1	260	0.25000	65			65
549			June	5	7	124	111	(54.51)	1	(55)	0.25000	(14)			(14)
550			July	-	-	5	7	8.39	1	8	0.25000	2			2
551			August	-	4	-	-	-	1	-	0.25000	-			-
552			September	13	48	-	4	16.77	1	17	0.25000	4			4
553			October	362	298	13	48	146.76	1	147	0.25000	37			37
554			November	683	603	362	298	(436.07)	1	(436)	0.25000	(109)			(109)
555			December	880	972	683	603	(251.58)	1	(252)	0.25000	(63)			(63)
556			Total	4,729	4,876	4,613	4,876	1,102.76	1	1,103		276			276

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
				HDD		HDD									
Line	Customer	Weather		Current Month		Previous Month		Adjustment	2002	Adjusted	Margin		Cost of Gas		Total
No.	Classification	Station	Month	Actual	Normal	Actual	Normal	Mcf/cust.	# of Cust.	Units	$/Mcf	$	$/Mcf	$	Adjustment
										Mcf					$
										[I]X[J]		[K]X[L]	(1), (2), (3)	[K]X[N]	[M]+[O]
557	Summary														
558	Residential														
559		Southern System - (MO001)							27,984	86,984		193,930	6.2320	542,086	736,016
560		Northern System - (MO002)							9,143	51,292		114,356	6.0603	310,846	425,201
561		Eastern System - (MO003)							3,565	11,090		24,725	9.9620	110,480	135,206
562		Total							40,693	149,366		333,011		963,412	1,296,422
563	Commercial Firm														
564		Southern System - (MO051)							3,531	40,032		82,970	6.2320	249,483	332,453
565		Northern System - (MO052)							1,361	23,169		49,122	6.0603	140,413	189,536
566		Eastern System - (MO053)							457	5,328		11,667	9.9620	53,081	64,749
567		Total							5,369	68,530		143,760		442,978	586,737
568	Industrial Firm														
569		Southern System - (MO051)							15	1,749		2,447	6.2320	10,901	13,348
570		Northern System - (MO052)							6	391		799	6.0603	2,371	3,170
571		Total							21	2,140		3,245		13,272	16,518
572	Large Volume Transportation														
573		Southern System - (MO501)							23	9,070		1,920		-	1,920
574		Northern System - (MO502)							6	29,966		6,347		-	6,347
575		Eastern System - (MO503)							1	-		-		-	-
576		Total							30	39,036		8,267		-	8,267
577	Special Contract Customers														
578		Southern System - (MO522, MO523, MO524)							3	907		199		-	199
579		Northern System - (MO530, MO531, MO539)							3	1,956		508		-	508
580		Total							6	2,864		707		-	707
581	Total System								46,119	261,937		488,989		1,419,662	1,908,651

Notes:

(1) Southern System 20596829 (cost of gas purchases) / 3304993 (Mcf) = $6.232/Mcf.
(2) Northern System 6849751 (cost of gas purchases) / 1130257 (Mcf) = $6.0603/Mcf.
(3) Eastern System 3503750 (cost of gas purchases) / 351711 (Mcf) = $9.962/Mcf.
(4) Margin for commercial, industrial, and large volume transportation customers is based on a weighted average of block rate and bill frequency data

Aquila Networks - L&P (formerly St. Joseph Light & Power Co.)
Summary of Statistical Results from Heating
Degree Day Regression Analysis

Line No	Description		1995-2002	1996-2002	1997-2002	1998-2002	1999-2002	2000-2002	2001-2002	2002	Comments
	Trend		1,096	942	798	654	510	366	222	78	
1	Residential General (MO004 & MO005)										
2	Weather Station - Maryville										
3	Constant		2.212	1.426	1.251	1.195	0.337	0.299	0.304	2.315	Consistent normal use/customer
4	Current Month's HDD		0.01355	0.01164	0.01102	0.01067	0.00991	0.00952	0.00879	0.00635	R squared value and F are most
5	Previous Month's HDD		-	0.00207	0.00246	0.00273	0.00333	0.00364	0.00574	0.00588	significant in 1995-2002 period.
6	Trend		(0.02858)	(0.02163)	(0.02115)	(0.02515)	-	-	-	(0.23400)	1995-2002 period contains both
7	R squared		0.937	0.955	0.954	0.948	0.942	0.931	0.938	0.977	warmer and colder years.
8	F		710.389	566.662	488.245	358.910	383.878	238.436	174.947	156.588	1995-2002 period is closest
9	Predicted Normal Use/Customer		90.096	82.242	82.224	81.501	86.680	85.743	81.798	85.700	to normal
10	Average Annual HDD	6,239									
11	Time Period Used		xxxxx								
12	Peak Day	83									
13	Load Factor		19.72%	19.87%	20.23%	20.18%	21.39%	21.30%	21.35%	22.59%	
14	Commercial Firm General (MO054 & MO055)										
15	Weather Station - Maryville										
16	Constant		8.839	5.939	1.722	2.080	1.859	1.785	1.873	9.591	R squared value and F are relatively
17	Current Month's HDD		0.03812	0.03294	0.02860	0.02943	0.02824	0.02784	0.01890	0.02009	strong in 1995-2002 period.
18	Previous Month's HDD		-	0.00514	0.00822	0.00656	0.00759	0.00807	0.01483	0.01095	1995-2002 period contains both
19	Trend		(0.11600)	(0.08856)	-	-	-	-	-	(0.58100)	warmer and colder years
20	R squared		0.889	0.904	0.911	0.931	0.927	0.917	0.930	0.958	1995-2002 period is closest
21	F		382.741	260.058	362.196	400.637	298.655	193.808	152.621	80.104	to normal
22	Predicted Normal Use/Customer		217.923	225.413	250.409	249.527	245.876	245.475	231.670	240.033	
23	Average Annual HDD	6,239									
24	Time Period Used		xxxxx								
25	Peak Day	83									
26	Load Factor		19.20%	19.75%	22.04%	22.37%	22.19%	22.13%	22.31%	24.33%	
27	Industrial Firm General (MO054)										
28	Weather Station - Maryville										
29	Constant		46.971	48.049	32.940	9.366	10.233	11.093	12.030	12.743	Same number of customers after
30	Current Month's HDD		0.10500	0.09654	-	0.02739	0.02531	0.02438	-	-	January 1998 and normal use per
31	Previous Month's HDD		-	-	0.07758	0.01906	0.02034	0.02290	0.04237	0.04287	customer is also consistent after 1998
32	Trend		(0.87500)	(1.01500)	(0.74800)	-	-	-	-	-	R squared value and F are relatively
33	R squared		0.490	0.444	0.346	0.820	0.823	0.832	0.941	0.965	strong in 1998-2002 period.
34	F		46.650	34.105	19.818	135.096	110.524	87.454	367.426	306.398	
35	Predicted Normal Use/Customer		268.497	219.845	252.398	402.194	407.806	428.096	409.706	419.134	
36	Average Annual HDD	6,239									
37	Time Period Used					xxxxx					
38	Peak Day	83									
39	Load Factor		9.61%	8.85%	13.14%	26.47%	27.07%	27.35%	28.62%	28.99%	
40	Commercial Large Volume Firm (MO284)										
41	Weather Station - Maryville										
42	Constant		1,137.242	1,317.737	1,249.454	226.580	212.403	195.996	186.493	175.872	Normal use per customer
43	Current Month's HDD		0.67900	0.60400	0.69900	0.74000	0.76700	0.78000	0.81900	-	is fairly consistent after 1998
44	Previous Month's HDD		-	-	-	-	-	-	-	0.88000	R squared value and F are strongest
45	Trend		(12.01600)	(17.24000)	(21.19400)	-	-	-	-	-	in 1998-2002 period.
46	R squared		0.173	0.160	0.156	0.739	0.786	0.762	0.718	0.656	
47	F		10.947	10.108	9.109	168.119	155.144	113.031	59.549	66.477	
48	Predicted Normal Use/Customer		6,081.609	4,567.036	3,669.497	7,335.820	7,334.149	7,280.762	7,347.657	7,600.784	
49	Average Annual HDD	6,239									
50	Time Period Used					xxxxx					
51	Peak Day	83									
52	Load Factor		22.34%	19.17%	14.57%	29.19%	28.44%	27.70%	27.16%	28.42%	
53	Industrial Large Volume Firm (MO284)		Not Statistically Significant (No seasonal pattern)								
54	Commercial Large Volume Firm (MO285)		Not Statistically Significant (Only 3 months of actual usage)								
55	Industrial Large Volume Firm (MO285)		Not Statistically Significant (Only 2 years of data with no seasonal pattern)								
56	Transportation (MO584)										
57	Weather Station - Maryville										
58	Constant							2683.702	2889.466	2528.177	Seasonal pattern is marginal. Do not
59	Current Month's HDD							1.829	2.966	2.243	adjust
60	Previous Month's HDD							-	(1.534)	-	
61	Trend			N/A	N/A	N/A	N/A	-	-	-	
62	R squared							0.338	0.561	0.592	
63	F							18.909	15.677	16.992	

Aquila Networks - L&P (formerly St. Joseph Light & Power Co.
Calculation of Weather Normalization Adjustment

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]
				HDD		HDD									
Line No.	Customer Classification	Weather Station	Month	Current Month Actual	Current Month Normal	Previous Month Actual	Previous Month Normal	Adjustment	2002 # of Cust.	Adjusted Units	Margin		Cost of Gas		Total Adjustment
								Mcf/cust.		Mcf [D]X[J]	$/Mcf	$ [K]X[L]	$/Mcf (1)	$ [K]X[N]	$ [M]+[O]
1	Residential General - (MO004)														
2		Maryville			0.01355		-								
3			January	1,089	1,318	944	1,190	3.10	4,069	12,668	1.6350	20,745	5.0327	63,755	84,500
4			February	927	1,035	1,089	1,318	1.46	4,063	5,946	1.6350	9,721	5.0327	29,924	39,645
5			March	897	793	927	1,035	(1.41)	4,045	(5,700)	1.6350	(9,320)	5.0327	(28,688)	(38,008)
6			April	396	429	897	793	0.45	4,050	1,815	1.6350	2,968	5.0327	8,137	12,105
7			May	202	173	396	429	(0.39)	4,110	(1,615)	1.6350	(2,641)	5.0327	(8,128)	(10,769)
8			June	-	19	202	173	0.28	4,008	1,031	1.6350	1,686	5.0327	5,190	6,877
9			July	-	-	-	19	-	3,977	-	1.6350	-	5.0327	-	-
10			August	2	19	-	-	0.23	3,965	913	1.6350	1,493	5.0327	4,597	6,090
11			September	45	97	2	19	0.70	3,970	2,797	1.6350	4,574	5.0327	14,078	18,651
12			October	504	380	45	97	(1.68)	3,967	(6,665)	1.6350	(10,898)	5.0327	(33,545)	(44,443)
13			November	631	786	504	380	(0.61)	4,025	(2,454)	1.6350	(4,013)	5.0327	(12,352)	(16,364)
14			December	1,032	1,190	631	786	2.14	4,030	8,628	1.6350	14,106	5.0327	43,422	57,528
15			Total	5,925	6,239	5,837	6,239	4.25	4,026	17,394		28,423		87,490	115,913
16	Residential General - (MO005)														
17		Maryville			0.01355		-								
18			January	1,089	1,318	944	1,190	3.10	1,287	3,993	1.6350	6,528	5.0327	20,098	26,626
19			February	927	1,035	1,089	1,318	1.46	1,282	1,878	1.6350	3,067	5.0327	9,442	12,509
20			March	897	793	927	1,035	(1.41)	1,278	(1,801)	1.6350	(2,945)	5.0327	(9,064)	(12,008)
21			April	396	429	897	793	0.45	1,274	570	1.6350	931	5.0327	2,867	3,798
22			May	202	173	396	429	(0.39)	1,264	(497)	1.6350	(812)	5.0327	(2,500)	(3,312)
23			June	-	19	202	173	0.28	1,252	322	1.6350	527	5.0327	1,622	2,149
24			July	-	-	-	19	-	1,234	-	1.6350	-	5.0327	-	-
25			August	2	19	-	-	0.23	1,227	283	1.6350	462	5.0327	1,422	1,885
26			September	45	97	2	19	0.70	1,221	860	1.6350	1,407	5.0327	4,330	5,736
27			October	504	380	45	97	(1.68)	1,243	(2,068)	1.6350	(3,415)	5.0327	(10,511)	(13,926)
28			November	631	786	504	380	(0.61)	1,288	(774)	1.6350	(1,265)	5.0327	(3,894)	(5,159)
29			December	1,032	1,190	631	786	2.14	1,269	2,717	1.6350	4,442	5.0327	13,673	18,115
30			Total	5,925	6,239	5,837	6,239	4.25	1,256	5,461		8,929		27,486	36,415
31	Commercial Firm General - (MO054)														
32		Maryville			0.03512		-								
33			January	1,089	1,318	944	1,190	8.73	616	5,377	1.4010	7,534	5.0327	27,063	34,597
34			February	927	1,035	1,089	1,318	4.12	614	2,528	1.4010	3,541	5.0327	12,722	16,263
35			March	897	793	927	1,035	(3.96)	616	(2,442)	1.4010	(3,421)	5.0327	(12,291)	(15,712)
36			April	396	429	897	793	1.26	612	770	1.4010	1,079	5.0327	3,875	4,953
37			May	202	173	396	429	(1.11)	609	(673)	1.4010	(943)	5.0327	(3,388)	(4,331)
38			June	-	19	202	173	0.72	596	432	1.4010	605	5.0327	2,172	2,777
39			July	-	-	-	19	-	596	-	1.4010	-	5.0327	-	-
40			August	2	19	-	-	0.65	594	385	1.4010	539	5.0327	1,937	2,477
41			September	45	97	2	19	1.96	594	1,177	1.4010	1,650	5.0327	5,926	7,575
42			October	504	380	45	97	(4.73)	593	(2,803)	1.4010	(3,927)	5.0327	(14,107)	(18,034)
43			November	631	786	504	380	(1.72)	604	(1,036)	1.4010	(1,452)	5.0327	(5,214)	(6,666)
44			December	1,032	1,190	631	786	6.02	614	3,698	1.4010	5,181	5.0327	18,612	23,793
45			Total	5,925	6,239	5,837	6,239	11.97	605	7,413		10,385		37,306	47,691
46	Commercial Firm General - (MO055)														
47		Maryville			0.03512		-								
48			January	1,089	1,318	944	1,190	8.73	221	1,929	1.4010	2,703	5.0327	9,709	12,412
49			February	927	1,035	1,089	1,318	4.12	221	910	1.4010	1,275	5.0327	4,578	5,854
50			March	897	793	927	1,035	(3.96)	223	(884)	1.4010	(1,239)	5.0327	(4,449)	(5,688)
51			April	396	429	897	793	1.26	220	277	1.4010	388	5.0327	1,393	1,781
52			May	202	173	396	428	(1.11)	220	(243)	1.4010	(341)	5.0327	(1,224)	(1,565)
53			June	-	19	202	173	0.72	215	156	1.4010	218	5.0327	784	1,002
54			July	-	-	-	19	-	209	-	1.4010	-	5.0327	-	-
55			August	2	19	-	-	0.65	209	135	1.4010	190	5.0327	682	871
56			September	45	97	2	19	1.96	211	415	1.4010	595	5.0327	2,105	2,691
57			October	504	380	45	97	(4.73)	211	(997)	1.4010	(1,397)	5.0327	(5,020)	(6,417)
58			November	631	786	504	380	(1.72)	212	(364)	1.4010	(509)	5.0327	(1,830)	(2,340)
59			December	1,032	1,190	631	786	6.02	214	1,289	1.4010	1,806	5.0327	6,487	8,293
60			Total	5,925	6,239	5,837	6,239	11.97	216	2,626		3,679		13,215	16,894
61	Industrial Firm General - (MO054														
62		Maryville			0.02739		0.01906								
63			January	1,089	1,318	944	1,190	10.98	2	22	1.4010	31	5.0327	110	141
64			February	927	1,035	1,089	1,318	7.32	2	15	1.4010	21	5.0327	74	94
65			March	897	793	927	1,035	(0.79)	2	(2)	1.4010	(2)	5.0327	(8)	(10)
66			April	396	429	897	793	(1.08)	2	(2)	1.4010	(3)	5.0327	(11)	(14)
67			May	202	173	396	429	(0.17)	2	(0)	1.4010	(0)	5.0327	(2)	(2)
68			June	-	19	202	173	(0.03)	2	(0)	1.4010	(0)	5.0327	(0)	(0)
69			July	-	-	-	19	0.36	2	1	1.4010	1	5.0327	4	5
70			August	2	19	-	-	0.47	2	1	1.4010	1	5.0327	5	6
71			September	45	97	2	19	1.75	2	3	1.4010	5	5.0327	18	22
72			October	504	380	45	97	(2.41)	2	(5)	1.4010	(7)	5.0327	(24)	(31)
73			November	631	786	504	380	(3.60)	2	(7)	1.4010	(10)	5.0327	(36)	(46)
74			December	1,032	1,190	631	786	3.47	2	7	1.4010	10	5.0327	35	45
75			Total	5,925	6,239	5,837	6,239	18.26	2	33		46		184	209
76	Commercial Large Volume Firm - (MO284)														
77		Maryville			0.74000		-								
78			January	1,089	1,318	944	1,190	168.46	8	1,017	0.7290	741	5.0327	5,117	5,858
79			February	927	1,035	1,089	1,318	79.92	7	559	0.7290	408	5.0327	2,816	3,223
80			March	897	793	927	1,035	(75.96)	7	(539)	0.7290	(393)	5.0327	(2,711)	(3,104)
81			April	396	429	897	793	24.42	7	171	0.7290	125	5.0327	860	985
82			May	202	173	396	429	(21.48)	7	(150)	0.7290	(110)	5.0327	(756)	(866)
83			June	-	19	202	173	14.06	7	98	0.7290	72	5.0327	495	567
84			July	-	-	-	19	-	7	-	0.7290	-	5.0327	-	-
85			August	2	19	-	-	12.58	7	88	0.7290	64	5.0327	443	507
86			September	45	97	2	19	38.48	7	269	0.7290	196	5.0327	1,356	1,552
87			October	504	380	45	97	(91.76)	7	(642)	0.7290	(468)	5.0327	(3,233)	(3,701)
88			November	631	786	504	380	(33.30)	7	(233)	0.7290	(170)	5.0327	(1,173)	(1,343)
89			December	1,032	1,190	631	786	116.92	7	818	0.7290	597	5.0327	4,118	4,715
90			Total	5,925	6,239	5,837	6,239	232.36	7	1,457		1,062		7,333	8,395
91	Summary														
92	Residential General - (MO004)								4,026	17,394		28,423	5.0327	87,490	115,913
93	Residential General - (MO005)								1,256	5,461		8,929	5.0327	27,486	36,415
94	Commercial Firm General - (MO054)								605	7,413		10,385	5.0327	37,306	47,691
95	Commercial Firm General - (MO055)								216	2,626		3,679	5.0327	13,215	16,894
96	Industrial Firm General - (MO054)								2	33		46	5.0327	184	209
97	Commercial Large Volume Firm - (MO284								7	1,457		1,062	5.0327	7,333	8,395
98	Total								8,113	34,374		52,524		172,994	225,518

Notes:
(1) 3914291 (cost of gas purchases) / 777765 (Mcf) = $5.0327/Mcf.

Aquila Networks - MPS
Adjusted Volumes Compared to Weather Variation from Normal

[A] Line No.	[B] Weather Station	[C] Adjustment	[D] 2002 Volumes	[E] Percent of Total	[F] 13 Month HDD from Normal
		Mcf	Mcf		
1	Southern System				
2	KCI	12,729	234,340	5.43%	7.51%
3	Lexington	45,905	557,320	8.24%	10.82%
4	Marshall	27,518	658,934	4.18%	6.94%
5	Sedalia	28,219	1,921,760	1.47%	3.66%
6	Clinton	11,052	430,873	2.56%	4.18%
7	Nevada	13,319	505,800	2.63%	4.45%
8	Total Southern System	138,742	4,309,027	3.22%	
9					
10	Northern System				
11	Chillicothe	44,506	898,276	4.95%	5.70%
12	Salisbury	11,693	153,931	7.60%	8.32%
13	Spickard	21,558	230,190	9.37%	10.13%
14	Brookfield	27,062	337,918	8.01%	9.25%
15	Total Southern System	104,818	1,620,315	6.47%	
16					
17	Eastern System				
18	University of MO-Rolla	18,376	550,894	3.34%	6.07%
19					
20	Total MPS System	261,937	6,480,236	4.04%	

Aquila Networks - L&P (formerly St. Joseph Light & Power Co.)
Adjusted Volumes Compared to Weather Variation from Normal

[A] Line No.	[B] Weather Station	[C] Adjusted Volumes Mcf	[D] 2002 Volumes Mcf	[E] Percent of Total	[F] 13 Month HDD from Normal
1	Maryville	34,374	673,726	5.10%	7.54%

Aquila - Missouri Public System
Revenue Synchronization Adjustment - Revenues Under Existing Rates - MPS
Sales

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]	[Q]	[R]	[S]
			Per Books				Present Rates			Synchronized Revenues Under Present Rates								
Line No.	Rate Schedule	CIS Rate Code	Average Number of Customers	Throughput Mcf	Bill Frequency	Annual Billing Demand Mcf	Customer Charge $/Meter	Energy Charge $/Mcf	Billing Demand $/Mcf	Customer Charge $	Energy Charge $	Billing Demand $	Total Margin $	Cost of Gas $ Direct	Total Revenues $	Per Books Revenues Net of Unbilled $	Difference $	Difference %
										12X[D]X[H]	[E]X[F]X[I]	Page 2	[K]+[L]+[M]		[N]+[O]		[P]-[Q]	[R]/[Q]
1	**RESIDENTIAL**																	
2	Southern System	MO001	27,984	2,153,362			9.00	2.2295		3,022,272	4,800,921		7,823,193	13,416,434	21,239,627	21,189,459	50,168	0.24%
3	Northern System	MO002	9,143	737,314			9.00	2.2295		987,444	1,643,842		2,631,286	4,470,376	7,101,662	7,089,214	12,448	0.18%
4	Eastern System	MO003	3,566	224,338			9.00	2.2295		385,128	500,162		885,290	2,232,262	3,117,552	3,112,998	4,554	0.15%
5	Total Residential		40,693	3,115,014						4,394,844	6,944,924		11,339,768	20,119,072	31,458,840	31,391,671	67,169	0.21%
6																		
7	**GENERAL SERVICE**																	
8	Commercial																	
9	Southern System	MO051	3,531	1,088,637			15.00			635,580	2,256,288		2,891,868	6,784,133	9,676,001	9,688,876	(12,875)	-0.13%
10	First 60 Mcf				57.00%			2.4008										
11	Next 80 Mcf				18.00%			2.2208										
12	Next 100 Mcf				9.00%			2.0405										
13	Excess				16.00%			0.7546										
14	Northern System	MO052	1,382	387,257			15.00			248,760	821,048		1,069,808	2,345,211	3,415,019	3,399,358	15,661	0.46%
15	First 60 Mcf				60.00%			2.4008										
16	Next 80 Mcf				17.00%			2.2208										
17	Next 100 Mcf				10.00%			2.0405										
18	Excess				13.00%			0.7546										
19	Eastern System	MO053	457	127,373			15.00			82,260	278,898		361,158	1,271,488	1,632,646	1,629,906	2,740	0.17%
20	First 60 Mcf				64.00%			2.4008										
21	Next 80 Mcf				19.00%			2.2208										
22	Next 100 Mcf				8.00%			2.0405										
23	Excess				9.00%			0.7546										
24	Total Commercial		5,370	1,603,267						966,600	3,356,235		4,322,835	10,400,832	14,723,667	14,718,140	5,527	0.04%
25																		
26	Industrial																	
27	Southern System	MO051	22	62,994			15.00			3,960	88,115		92,075	396,262	488,337	488,950	(613)	-0.13%
28	First 50 Mcf				14.50%			2.4008										
29	Next 80 Mcf				14.50%			2.2208										
30	Next 100 Mcf				15.00%			2.0405										
31	Excess				56.00%			0.7546										
32	Northern System	MO052	6	5,686			15.00			1,080	11,606		12,686	34,164	46,850	46,853	(3)	-0.01%
33	First 50 Mcf				43.00%			2.4008										
34	Next 80 Mcf				25.00%			2.2208										
35	Next 100 Mcf				16.50%			2.0405										
36	Excess				15.50%			0.7546										
37	Total Industrial		28	68,680						5,040	99,721		104,761	430,426	535,187	535,803	(616)	-0.11%
38																		
39	Interdepartmental																	
40	Southern System	MO051	7	1,931			15.00			1,260	4,636		5,896	12,391	18,287	17,947	340	1.89%
41	First 60 Mcf				100.00%			2.4008										
42	Next 80 Mcf				0.00%			2.2208										
43	Next 100 Mcf				0.00%			2.0405										
44	Excess				0.00%			0.7546										
45																		
46	Total General Service		5,405	1,673,878						972,900	3,460,592		4,433,492	10,843,649	15,277,141	15,271,890	5,251	0.03%
47																		
48	**LARGE VOLUME FIRM**																	
49	Northern System	MO282	1	19,812		112	215.00		3.90	2,580	4,874	435	7,889	94,848	102,737	104,121	(1,384)	-1.33%
50	First 20,000 Mcf				100.00%			0.2460										
51	Excess				0.00%			0.1000										
52	Total Large Volume Firm		1	19,812		112				2,580	4,874	435	7,889	94,848	102,737	104,121	(1,384)	-1.33%
53																		
54	**LARGE VOLUME INTERRUPTIBLE**																	
55	Northern System	MO262	0	471		0	215.00		3.90	0	116	0	116	1,906	2,022	2,166	(144)	-6.65%
56	First 20,000 Mcf				100.00%			0.2460										
57	Excess				0.00%			0.1000										
58	Total Large Volume Interruptible		0	471		0				0	116	0	116	1,906	2,022	2,166	(144)	-6.65%
59																		
60	**TOTAL SALES**		46,099	4,809,175		112				5,370,324	10,410,505	435	15,781,264	31,059,475	46,840,739	46,769,848	70,891	0.15%
61	**TOTAL TRANSPORTATION (page 2)**		47	4,072,358		156,128				122,085	944,989	607,356	1,674,429	449	1,674,878	1,689,543	(14,666)	-0.87%
62	Total MPS		46,146	8,881,533		156,240				5,492,409	11,355,494	607,791	17,455,694	31,059,924	48,515,617	48,459,391	56,226	0.12%

Aquila - Missouri Public System
Revenue Synchronization Adjustment - Revenues Under Existing Rates - MPS
Transportation

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]	[P]	[Q]
			Per Books - Annual Number of Units				Present Rates			Synchronized Revenues Under Present Rates						
Line No	Rate Schedule	CIS Rate Code	Annual Customer Charges	Throughput Mcf	Bill Frequency	Annual Billing Demand Mcf	Customer Charge $/Meter	Energy Charge $/Mcf	Billing Demand $/Mcf	Customer Charge $ [D]*[H]	Energy Charge $ [E]*[F]*[I]	Billing Demand $ [G]*[J]	Total Margin $ [M] thru [K]	Cost of Gas $ [E]*[I]	Total $ [O]+[M]	Per Books $
63	LARGE VOLUME TRANSPORTATION															
64	Southern System	MO501	305	1,870,552		108,287	215 00		3 90000	65,575	353,592	422,318	841,485		841,485	
65	First 20,000 Mcf				78 48%			0 24600								
66	Excess				23 52%			0 10000								
67	Northern System	MO502	72	543,425		36,849	215 00		3 90000	15,480	115,099	142,931	273,509		273,509	
68	First 20,000 Mcf				76 58%			0 24600								
69	Excess				23 42%			0 10000								
70	Eastern System	MO503	12	41,359		2,672	215 00		3 90000	2,580	10,174	10,420	23,174		23,174	
71	First 20,000 Mcf				100 00%			0 24600								
72	Excess				0 00%			0 10000								
73	Total Large Volume Transportation		389	2,255,336		147,807				83,635	478,865	575,669	1,138,169	0	1,138,169	
74																
75	SMALL VOLUME TRANSPORTATION															
76	Southern System															
77	Sprinkler Food	MO01E	12	8,176			15 00			180	10,277	0	10,457		10,457	
78	First 50 Mcf				8 81%			2 39080								
79	Next 50 Mcf				11 74%			2 21080								
80	Next 100 Mcf				14 68%			2 03050								
81	Excess				64 77%			0 75460								
82	PGA (L&U)							0 05490						449	449	
83	Total Small Volume Transportation		12	8,176		0				180	10,277	0	10,457	449	10,906	
84																
85	SPECIAL CONTRACT TRANSPORTATION															
86	Southern System															
87	Pittsburgh Corning Co.	MO521	12	455,906		0	215 00		0 00000	2,580	132,213	0	134,793		134,793	
88	First 50,000 Mcf [1]				100 00%			0 29000								
89	Excess				0 00%			0 13000								
90																
91	Tyson Foods Processing	MO522	12	670,458		0	215 00	0 22000	0 00000	2,580	147,501	0	150,081		150,081	
92																
93	Tyson Foods Feed Mill	MO523	12	45,301		0	215 00	0 22000	0 00000	2,580	9,966	0	12,546		12,546	
94																
95	Tyson Foods Hatchery	MO524	12	12,839		0	215 00	0 22000	0 00000	2,580	2,825	0	5,405		5,405	
96																
97	Excel Corporation	MO525	12	13,255		0	215 00	0 05000	0 00000	2,580	663	0	3,243		3,243	
98																
99	Marshall Municipal Utilities	MO526	12	48,357		0	215 00		0 00000	2,580	18,758	0	21,338		21,338	
100	First 50,000 Mcf [2]				100 00%			0 38000								
101	Excess				0 00%			0 03000								
102	Total Southern System		72	1,247,116		0				15,480	311,923	0	327,403	0	327,403	
103																
104	Northern System															
105	Chillicothe Municipal Utilities	MO527	12	36,080		812	215 00		7 00000	2,580	7,400	1,625	11,604		11,604	
106	First 20,000 Mcf [3]				100 00%			0 24800								
107	Excess				0 00%			0 10000								
108	Glen Gery Brick	MO528	12	175,831		5,273	215 00		3 90000	2,580	43,205	20,567	66,352		66,352	
109	First 20,000 Mcf [4]				100 00%			0 24600								
110	Excess				0 00%			0 10000								
111	Wire Rope Corp	MO529	10	91,601		2,435	215 00		3 90000	2,150	22,534	9,496	34,180		34,180	
112	First 20,000 Mcf				100 00%			0 24600								
113	Excess				0 00%			0 10000								
114	Total Northern System		34	297,312		8,521				7,310	73,139	31,687	112,136	0	112,136	
115																
116	Eastern System															
117	Phelps County Medical Center	MO530	12	37,193		0	215 00	0 25000	0 00000	2,580	9,298	0	11,878		11,878	
118																
119	University of MO - TJ Hall	MO531	12	11,315		0	215 00	0 30000	0 00000	2,580	3,395	0	5,975		5,975	
120																
121	Royal Canine USA, Inc	MO532	12	54,654		0	215 00	0 25000	0 00000	2,580	13,664	0	16,244		16,244	
122																
123	Briggs & Stratton	MO533	12	109,316		0	215 00	0 25000	0 00000	2,580	27,329	0	29,909		29,909	
124																
125	Suby Sea Laundry	MO534	12	21,578		0	215 00	0 30000	0 00000	2,580	6,473	0	9,053		9,053	
126																
127	Vonhoffmann Graphics	MO535	12	30,362		0	215 00	0 35000	0 00000	2,580	10,627	0	13,207		13,207	
128	Total Eastern System		72	264,418		0				15,480	70,785	0	86,265	0	86,265	
129																
130	Total Special Contract Transportation		178	1,808,846		8,521				38,270	455,847	31,687	525,804	0	525,804	
131																
132	Total Transportation		579	4,072,356		165,128				122,085	944,989	607,356	1,674,429	449	1,674,878	1,689,543

Notes:

(1) MO521 - Pittsburg Corning Co. - First 600,000 Mcf annual usage per calendar year.
(2) MO526 - Marshall Municipal Utilities - First 50,000 Mcf annual usage from October 1 through September 30.
(3) MO527 - Chillicothe Municipal Utility - Demand is zero from May-Sept. During Oct -April, demand is billed at $7/Mcf
(4) MO528 - Glen Gery Brick - Demand is calculated based on the highest daily volume in the current month (instead of the past 11 months)

Aquila Networks - L&P (formerly St. Joseph Light & Power Co.)
Revenue Synchronization Adjustment - Revenues Under Existing Rates - L&P
Sales

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]	[O]
			Per Books		Present Rates		Synchronized Revenues Under Present Rates							
Line No.	Rate Schedule	CIS Rate Code	Average Number of Customers	Throughput	Customer Charge	Energy Charge	Customer Charge	Energy Charge	Total Margin	Cost of Gas	Total Revenues	Revenues Net of Unbilled	Difference	
				Mcf	$/Meter	$/Mcf	$ 12X[D]X[F]	$ [E]X[G]	$ [H]+[I]	$ Direct	$ [J]+[K]	$	$ [L]-[M]	% [N]/[M]
1	**RESIDENTIAL**													
2	Rate Schedule 910	MO004	4,026	328,376	6.56	1.6350	321,758	536,895	858,653	1,649,245	2,507,898	2,500,887	7,011	0.28%
3	Rate Schedule 911 - FRT	MO005	1,258	104,639	5.65	1.6350	85,292	171,085	256,377	522,003	778,380	776,461	1,919	0.25%
4	Total Residential		5,284	433,015			407,050	707,980	1,115,030	2,171,248	3,286,278	3,277,348	8,930	0.27%
5														
6	**GENERAL SERVICE**													
7	**Commercial**													
8	Rate Schedule 920	MO054	605	145,079	12.31	1.4010	89,371	203,256	292,626	729,997	1,022,623	1,018,144	4,479	0.44%
9	Rate Schedule 921 - FRT	MO055	215	45,070	9.39	1.4010	24,226	63,143	87,369	225,405	312,774	311,101	1,673	0.54%
10	Total Commercial		820	190,149			113,597	266,399	379,996	955,402	1,335,398	1,329,245	6,153	0.46%
11														
12	**Industrial**													
13	Rate Schedule 920	MO054	2	804	12.31	1.4010	295	1,126	1,422	4,100	5,522	5,498	24	0.43%
14	Total Industrial		2	804			295	1,126	1,422	4,100	5,522	5,498	24	0.43%
15														
16	**Interdepartmental**	MO454	1	297	0.00	3.3500	0	995	995	0	995	995	(0)	-0.01%
17														
18	Total General Service		823	191,250			113,892	268,520	382,412	959,502	1,341,914	1,335,738	6,176	
19														
20	**LARGE VOLUME FIRM**													
21	**Commercial**													
22	Rate Schedule 930	MO284	7	49,758	184.53	0.7290	15,501	36,274	51,774	251,756	303,530	302,218	1,312	0.43%
23	Rate Schedule 930	MO285	1	2,316	184.53	0.7290	2,214	1,688	3,903	12,438	16,341	18,485	(2,144)	-11.60%
24	Total Commercial		8	52,074			17,715	37,962	55,677	264,194	319,871	320,703	(832)	-0.26%
25														
26	**Industrial**													
27	Rate Schedule 930	MO284	4	22,542	184.53	0.7290	8,857	16,433	25,291	115,843	141,134	140,474	660	0.47%
28	Rate Schedule 930	MO285	6	79,181	184.53	0.7290	13,286	57,723	71,009	403,504	474,513	480,442	(5,929)	-1.23%
29	Total Commercial		10	101,723			22,144	74,156	96,300	519,347	615,647	620,916	(5,269)	-0.85%
30														
31	**Transport. Cust. Charge(1)**	MO285			184.53 (2)		21,590		21,590		21,590		21,590	
32														
33	Total Large Volume Firm		18	153,797			61,448	112,118	173,567	783,541	957,108	941,619	15,489	1.64%
34														
35	**TOTAL SALES**		6,125	778,062	0	0	582,391	1,088,618	1,671,009	3,914,291	5,585,300	5,554,705	30,595	0.55%
36														
37	**TOTAL TRANSPORTATION (page 2)**		6	261,785			5,528	190,841	196,370	7,925	204,295	208,002	(3,707)	-1.78%
38														
39	**TOTAL L&P**		6,131	1,039,847			587,919	1,279,459	1,867,378	3,922,216	5,789,594	5,762,707	26,887	0.47%

(1) Transportation customers are charged the Large Volume customer charge ($184.53) plus the transportation meter charge ($47 25) for each meter.
The Large Volume customer charge is collected on the sales side therefore it is shown in this exhibit, page 1. The meter charge is shown on page 2.
(2) Based on the $184.53 charge times number of meter charges on Page 2.

Aquila Networks - L&P (formerly St. Joseph Light & Power Co.)
Revenue Synchronization Adjustment - Revenues Under Existing Rates - L&P
Transportation

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
			Per Books		Present Rates		Synchronized Revenues Under Present Rates						
Line No.	Rate Schedule	CIS Rate Code	Annual Number of Meter Charges	Throughput	Meter Charge	Energy Charge	Meter Charge	Energy Charge	Transition Charge	Total	Per Books	Difference	
				Mcf	$/Meter	$/Mcf	$ [D]X[F]	$ [E]X[G]	$ Per Books	$ [H]+[I]+[J]	$	$ [K]-[L]	% [M]/[L]
1	TRANSPORTATION	MO504	117	261,785	47.25	0.7290	5,528	190,841	7,925	204,295	208,002	(3,707)	-1.78%

Aquila - Missouri Public System
Customer Annualization Adjustment - MPS

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
			Throughput			Per Books Number	Weather Normalized	Customer	Volumetric	Annualization Adjustment			
Line No.	Rate Schedule	Rate Code	Per Books	Weather Adjustment	Weather Normalized	of Customers	Use Per Customer	Annualization Adjustment	Annualization Adjustment	Customer Charge	Energy Charge	Cost of Gas	Total
			Mcf Schedule 8	Mcf Schedule 3	Mcf [D]+[E]	Schedule 8	Mcf/Cust [F]/[G]		Mcf [H]X[I]	$ [I] X 12 Sch 8 [H]	$ [J] X Sch 8 [I]	$ [J] X Avg. COG	$ [K] thru [M]
1	**RESIDENTIAL**												
2	Southern System	MO001	2,153,362	86,984	2,240,346	27,984	80.06	186	14,891	20,088	33,199	92,800	146,087
3	Northern System	MO002	737,314	51,292	788,606	9,143	86.25	(4)	(345)	(432)	(769)	(2,091)	(3,292)
4	Eastern System	MO003	224,338	11,090	235,428	3,566	66.02	3	198	324	442	1,973	2,739
5	Total Residential		3,115,014	149,366	3,264,380	40,693	80.22	185	14,744	19,980	32,871	92,682	145,534
6													
7	**GENERAL SERVICE**												
8	**Commercial**												
9	Southern System	MO051	1,088,637	40,032	1,128,669	3,531	319.65	5	1,598	900	3,312	9,960	14,173
10	Northern System	MO052	387,257	23,169	410,426	1,382	296.98	(3)	(891)	(540)	(1,889)	(5,399)	(7,828)
11	Eastern System	MO053	127,373	5,328	132,701	457	290.38	15	4,356	2,700	9,537	43,391	55,628
12	Total Commercial		1,603,267	68,530	1,671,797	5,370	311.32	17	5,063	3,060	10,961	47,952	61,972
13													
14	**Industrial**												
15	Southern System	MO051	62,994	1,749	64,743	22	2,942.87	0	0	0	0	0	0
16	Northern System	MO052	5,686	391	6,077	6	1,012.87	0	0	0	0	0	0
17	Total Industrial		68,680	2,140	70,820	28	2,529.30	0	0	0	0	0	0
18													
19	**Interdepartmental**												
20	Southern System	MO051	1,931	0	1,931	7	275.86	0	0	0	0	0	0
21													
22	Total General Service		1,673,878	70,670	1,744,548	5,405	322.77	17	5,063	3,060	10,961	47,952	61,972
23													
24	**LARGE VOLUME FIRM**												
25	Northern System	MO282	19,812	0	19,812	1	19,812.00	0	0	0	0	0	0
26	Total Large Volume Firm		19,812	0	19,812	1	19,812.00	0	0	0	0	0	0
27													
28	**LARGE VOLUME INTERRUPTIBLE**												
29	Northern System	MO262	471	0	471	0		0	0	0	0	0	0
30	Total Large Volume Interr.		471	0	471	0		0	0	0	0	0	0
31													
32	**TOTAL SALES**		4,809,175	220,036	5,029,211	46,099	109.10	202	19,807	23,040	43,832	140,634	207,506
33	**Total Transportation**		4,072,358	41,901	4,114,259	47	87,537.42	0	0	0	0	0	0
34	**Total MPS**		8,881,533	261,937	9,143,470	46,146	198.14	202	19,807	23,040	43,832	140,634	207,506

Aquila Networks - L&P (formerly St. Joseph Light & Power Co.)
Customer Annualization Adjustment - L&P

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
			Throughput			Per Books Number	Weather Normalized	Customer	Volumetric	Annualization Adjustment			
Line No.	Rate Schedule	Rate Code	Per Books	Weather Adjustment	Weather Normalized	of Customers	Use Per Customer	Annualization Adjustment	Annualization Adjustment	Customer Charge	Energy Charge	Cost of Gas	Total
			Mcf Schedule 9	Mcf Schedule 4	Mcf [D]+[E]	Schedule 9	Mcf/Cust Sch 19 [L]		Mcf [H]X[I]	$ [I] X 12 Sch 9 [H]	$ [J] X Sch 9 [G]	$ [J] X Avg. COG	$ [K] thru [M]
1	**RESIDENTIAL**												
2	Rate Schedule 910	MO004	328,376	17,384	345,760	4,026	85.88	(17)	(1,460)	(1,359)	(2,387)	(7,348)	(11,093)
3	Rate Schedule 911 - FRT	MO005	104,639	5,461	110,100	1,258	87.52	1	88	68	143	440	651
4	Total Residential		433,015	22,846	455,861	5,284	86.27	(16)	(1,372)	(1,291)	(2,244)	(6,907)	(10,442)
5													
6	**GENERAL SERVICE**												
7	**Commercial**												
8	Rate Schedule 920	MO054	145,079	7,413	152,492	605	252.05	3	756	443	1,059	3,806	5,308
9	Rate Schedule 921 - FRT	MO055	45,070	2,626	47,696	215	221.84	(2)	(444)	(225)	(622)	(2,233)	(3,080)
10	Total Commercial		190,149	10,039	200,188	820	244.13	1	312	218	438	1,573	2,228
11													
12	**Industrial**												
13	Rate Schedule 920	MO054	804	33	837	2	418.26	0	0	0	0	0	0
14	Total Industrial		804	33	837	2	418.26	0	0	0	0	0	0
15													
16	**Interdepartmental**	MO454	297	0	297	1	297.00	0	0	0	0	0	0
17													
18	Total General Service		191,250	10,071	201,321	823	244.62	1	312	218	438	1,573	2,228
19													
20	**LARGE VOLUME FIRM**												
21	**Commercial**												
22	Rate Schedule 930	MO284	49,758	1,457	51,215	7	7,316.44	0	0	0	0	0	0
23	Rate Schedule 930	MO285	2,316	0	2,316	1	2,316.00	0	0	0	0	0	0
24	Total Commercial		52,074	1,457	53,531	8	6,691.38	0	0	0	0	0	0
25													
26	**Industrial**												
27	Rate Schedule 930	MO284	22,542	0	22,542	4	5,635.50	0	0	0	0	0	0
28	Rate Schedule 930	MO285	79,181	0	79,181	6	13,196.83	0	0	0	0	0	0
29	Total Commercial		101,723	0	101,723	10	10,172.30	0	0	0	0	0	0
30													
31	Total Large Volume Firm		153,797	1,457	155,254	18	8,625.23	0	0	0	0	0	0
32													
33	**Total Sales**		778,062	34,374	812,436	6,125	132.64	(15)	(1,060)	(1,073)	(1,806)	(5,335)	(8,214)
34	**Total Transportation**		261,785	0	261,785	6	43,630.83	0	0	0	0	0	0
35	**Total SJPL**		1,039,847	34,374	1,074,221	6,131	175.21	(15)	(1,060)	(1,073)	(1,806)	(5,335)	(8,214)

Aquila Networks - MPS
Loss and Unaccounted for Gas

		Southern				Northern				Eastern				Total			
		Mcf Purchases	Billed Mcf Sales	Difference	Percent of Purchasing	Mcf Purchases	Billed Mcf Sales	Difference	Percent of Purchasing	Mcf Purchases	Billed Mcf Sales	Difference	Percent of Purchasing	Mcf Purchases	Billed Mcf Sales	Difference	Percent of Purchasing
September	1997	330,123	318,200	11,923	3 612%	80,963	78,595	2,367	2 924%	9,125	5,721	3,404	37 301%	420,211	402,517	17,694	4 211%
October	1997	451,347	386,676	64,671	14 328%	145,780	105,886	39,894	27 366%	16,763	9,621	9,142	48 724%	615,890	502,183	113,707	18 462%
November	1997	754,520	589,406	165,114	21 883%	258,244	207,460	50,784	19 665%	43,768	21,248	22,520	51 454%	1,056,532	818,113	238,419	22 566%
December	1997	957,821	846,458	111,363	11 627%	324,122	287,207	36,921	11 391%	62,476	49,860	12,618	20 196%	1,344,426	1,183,525	160,902	11 968%
January	1998	973,178	976,677	(3,500)	-0 360%	334,631	329,498	5,133	1 534%	80,816	57,467	3,350	5 508%	1,388,624	1,363,642	4,983	0 364%
February	1998	764,439	844,911	(80,472)	-10 527%	246,987	269,755	(22,768)	-9 218%	45,176	55,526	(9,350)	-20 248%	1,057,603	1,170,192	(112,589)	-10 646%
March	1998	876,844	843,523	33,321	3 800%	294,146	287,629	6,517	2 216%	53,205	52,526	680	1 278%	1,224,195	1,183,677	40,518	3 310%
April	1998	501,677	634,054	(132,176)	-26 337%	159,526	198,949	(39,423)	-24 712%	21,860	44,189	(22,328)	-102 136%	683,264	877,192	(193,928)	-28 383%
May	1998	339,902	415,294	(75,392)	-22 181%	93,137	115,655	(22,518)	-24 177%	8,437	17,981	(9,543)	-113 106%	441,476	548,930	(107,453)	-24 340%
June	1998	460,434	474,805	(14,371)	-3 121%	100,161	99,823	338	0 338%	6,631	9,296	(2,665)	-40 196%	567,225	583,923	(16,698)	-2 944%
July	1998	376,877	388,372	(12,495)	-3 324%	100,214	100,954	(740)	-0 738%	7,085	7,922	(837)	-11 811%	483,177	497,248	(14,071)	-2 912%
August	1998	373,001	371,905	1,095	0 294%	75,426	73,807	1,619	2 147%	6,149	7,136	(986)	-16 037%	454,576	452,848	1,728	0 380%
September	1998	335,639	333,713	1,925	0 574%	84,111	75,426	8,685	10 325%	6,141	7,364	(1,224)	-19 930%	425,890	416,504	9,386	2 204%
October	1998	402,316	383,153	39,163	9 734%	114,408	95,308	19,100	16 695%	12,416	8,177	4,239	34 141%	529,140	486,638	62,502	11 812%
November	1998	603,920	490,000	113,920	18 863%	191,239	141,914	49,325	25 792%	31,847	14,861	16,986	53 337%	827,005	646,774	180,231	21,793%
December	1998	929,790	669,727	260,062	27,970%	283,534	204,467	79,067	27 886%	62,004	34,803	27,201	43 870%	1,275,327	908,997	366,331	28 724%
January	1999	1,149,111	1,162,715	(13,604)	-1 184%	367,629	367,082	547	0 149%	76,264	70,231	6,033	7 911%	1,593,004	1,600,028	(7,024)	-0 441%
February	1999	786,198	815,198	(49,290)	-6 408%	264,623	267,542	(13,019)	-5 113%	48,265	59,420	(11,155)	-23 111%	1,068,996	1,142,260	(73,264)	-6 854%
March	1999	805,520	805,533	(113)	-0 014%	254,885	262,667	(7,782)	-3 053%	51,568	53,430	(1,921)	-3 730%	1,111,913	1,121,729	(9,816)	-0 883%
April	1999	496,500	622,673	(126,173)	-25 413%	146,170	189,976	(43,806)	-29 969%	20,380	43,317	(22,937)	-112 544%	663,050	855,966	(192,916)	-29 095%
May	1999	362,711	432,516	(69,805)	-19 245%	95,183	114,522	(19,339)	-20 318%	9,548	19,932	(10,383)	-108 747%	467,442	566,969	(99,527)	-21 292%
June	1999	357,765	365,318	(7,553)	-2 111%	92,656	94,886	(2,230)	-2 407%	8,698	10,862	(4,164)	-62 158%	457,120	471,066	(13,946)	-3 051%
July	1999	376,222	386,364	(10,142)	-2 696%	118,355	118,007	348	0 294%	5,326	6,889	(563)	-8 902%	500,903	511,261	(10,357)	-2 068%
August	1999	371,239	378,152	(6,912)	-1 862%	96,312	91,770	4,542	4 716%	6,661	7,930	(1,269)	-19 049%	474,212	477,851	(3,639)	-0 767%
September	1999	335,602	351,806	(16,204)	-4 828%	91,512	83,601	7,911	8 645%	7,877	8,776	(899)	-11 417%	434,990	444,183	(9,192)	-2 113%
October	1999	448,134	443,454	4,680	1 044%	137,947	122,555	15,392	11 158%	18,634	11,968	6,666	35 050%	602,715	577,977	24,738	4 104%
November	1999	507,898	469,173	38,725	7 625%	172,508	141,008	31,500	18 260%	26,060	18,284	7,776	29 840%	706,467	628,465	78,001	11 041%
December	1999	827,211	709,935	117,275	14 177%	308,185	238,884	69,321	22 493%	61,167	27,818	33,349	54 521%	1,196,563	976,617	219,945	18 381%
January	2000	937,757	934,207	3,550	0 379%	355,337	321,619	33,718	9 489%	74,374	57,654	16,720	22 481%	1,367,468	1,313,479	53,988	3 948%
February	2000	712,485	949,458	(236,973)	-33 260%	271,980	323,841	(51,861)	-19 068%	50,595	77,639	(27,043)	-53 450%	1,035,060	1,350,938	(315,877)	-30 518%
March	2000	668,250	682,290	(14,040)	-2 101%	229,185	222,390	6,775	2 956%	37,616	48,883	(11,267)	-29 952%	935,031	953,563	(18,532)	-1 982%
April	2000	499,249	534,400	(35,151)	-7 041%	146,170	284,632	(138,462)	-94 727%	20,380	31,056	(10,676)	-52 382%	665,800	850,089	(184,289)	-27 679%
May	2000	361,738	295,174	66,563	18 401%	95,183	102,236	(7,053)	-7 410%	9,548	17,459	(7,911)	-82 849%	466,469	414,869	51,600	11 062%
June	2000	334,099	349,916	(15,817)	-4 734%	92,556	92,415	241	0 261%	5,858	9,448	(2,750)	-41 053%	433,453	451,779	(18,326)	-4 228%
July	2000	308,387	335,595	(27,209)	-8 823%	118,355	115,153	3,201	2 705%	6,326	8,706	(2,380)	-37 618%	433,068	459,455	(26,387)	-6 093%
August	2000	392,202	359,327	32,875	8 382%	159,651	126,129	33,522	20 997%	6,383	7,165	(781)	-12 239%	558,236	492,621	65,616	11 754%
September	2000	359,413	339,162	20,251	5 635%	97,408	94,421	2,987	3 066%	28,582	28,576	6	0 021%	485,403	462,159	23,244	4 789%
October	2000	444,915	320,116	124,799	28 050%	195,341	188,170	7,171	3 671%	37,057	35,558	1,499	4 045%	677,313	543,844	133,469	19 706%
November	2000	827,897	611,801	216,096	26 102%	280,527	193,113	87,414	31 161%	76,948	44,728	32,218	41 870%	1,185,370	849,642	335,728	28,323%
December	2000	1,243,985	901,603	342,382	27 523%	387,968	283,291	104,677	26 981%	125,067	78,935	46,132	36 886%	1,757,020	1,263,829	493,191	28,070%
January	2001	1,036,301	1,141,321	(105,020)	-10 134%	371,268	390,741	(19,473)	-5 245%	109,003	122,839	(13,836)	-12 694%	1,516,572	1,654,902	(138,330)	-9 121%
February	2001	901,720	918,684	(16,964)	-1 881%	316,003	315,530	473	0 150%	86,234	91,791	(5,557)	-6 444%	1,303,957	1,326,006	(22,048)	-1 691%
March	2001	791,980	868,260	(76,279)	-9 631%	241,172	259,672	(18,500)	-7 671%	70,997	82,062	(11,065)	-15 585%	1,104,149	1,209,994	(105,844)	-9 586%
April	2001	389,808	572,461	(182,655)	-46 856%	161,403	223,673	(62,270)	-38 580%	36,573	59,180	(22,607)	-61 373%	587,882	855,315	(267,433)	-45 491%
May	2001	295,985	360,677	(65,012)	-21 966%	91,356	100,960	(9,644)	-10 563%	31,705	34,257	(2,552)	-8 049%	418,976	496,184	(77,208)	-18 428%
June	2001	254,552	315,930	(61,368)	-24 108%	87,154	88,517	(1,363)	-1 564%	29,822	29,148	674	2 259%	371,528	433,595	(62,067)	-16 703%
July	2001	237,666	304,238	(66,573)	-28 011%	82,909	84,107	(1,198)	-1 445%	23,048	24,500	(1,452)	-6 302%	343,623	412,846	(69,223)	-20 145%
August	2001	241,902	287,405	(45,503)	-18 810%	108,268	97,321	10,947	10 111%	23,524	24,623	(1,099)	-4 674%	373,694	409,349	(35,655)	-9 541%
September	2001	289,849	271,160	18,689	6 448%	76,995	76,555	440	0 571%	28,566	28,163	403	1 411%	395,410	375,878	19,532	4 940%
October	2001	406,259	330,383	75,876	18 677%	137,834	107,741	30,093	21 833%	44,559	35,249	9,310	20 894%	588,652	473,373	115,279	19 584%
November	2001	488,147	405,870	82,277	16 855%	154,177	129,460	24,717	16 031%	49,875	42,487	7,388	14 813%	692,199	577,818	114,381	16 524%
December	2001	796,528	569,928	226,602	28 449%	259,945	179,605	80,340	30 907%	83,678	58,002	25,676	30 684%	1,140,151	807,533	332,618	29 173%
January	2002	927,009	920,757	6,252	0 674%	299,651	300,412	(761)	-0 254%	95,901	97,386	(1,485)	-1 548%	1,322,561	1,318,555	4,006	0 303%
February	2002	775,574	731,972	43,602	5 622%	256,355	257,170	(815)	-0 318%	84,193	83,532	661	0 785%	1,116,122	1,072,674	43,448	3 893%
March	2002	775,032	805,640	(30,608)	-3 949%	244,452	245,320	(868)	-0 355%	82,521	83,512	(991)	-1 201%	1,102,005	1,134,471	(32,466)	-2 946%
April	2002	420,886	574,965	(154,079)	-36 608%	133,150	191,023	(57,873)	-43 465%	42,458	68,567	(26,109)	-61 494%	596,494	834,556	(238,062)	-39 910%
May	2002	353,304	386,652	(33,348)	-9 439%	101,040	119,387	(18,347)	-18 158%	36,370	39,899	(3,529)	-9 702%	490,714	545,938	(55,224)	-11 254%
June	2002	284,288	311,564	(27,276)	-9 593%	84,804	88,688	(4,084)	-4 818%	28,249	30,614	(2,365)	-8 371%	397,341	431,166	(33,825)	-8 513%
July	2002	279,985	292,997	(13,012)	-4 647%	90,645	79,993	10,653	11 752%	28,578	28,290	(1,712)	-6 443%	397,209	401,281	(4,072)	-1 025%
August	2002	284,779	293,788	(9,009)	-3 164%	77,992	83,047	(5,055)	-6 482%	28,747	30,300	(1,553)	-5 401%	391,518	407,135	(15,617)	-3 989%
Year Ending August																	
	1998	7,159,361	7,090,281	69,080	0 965%	2,213,342	2,156,217	56,125	2 626%	344,496	338,491	6,005	1 743%	9,717,199	9,583,989	133,210	1 371%
	1999	6,956,840	6,825,161	131,679	1 893%	2,099,104	2,023,666	75,438	3 594%	338,058	337,215	843	0 249%	9,394,003	9,186,042	207,961	2 214%
	2000	6,333,011	6,414,736	(81,725)	-1 290%	2,178,648	2,174,443	4,205	0 193%	323,659	324,855	(1,196)	-0 369%	8,835,319	8,914,034	(78,715)	-0 891%
	2001	7,026,113	6,941,959	84,155	1 198%	2,420,727	2,319,506	101,221	4 181%	678,658	656,200	22,458	3 309%	10,125,498	9,917,665	207,834	2 053%
	2002	6,081,640	5,895,776	185,864	3 056%	1,917,041	1,858,602	58,439	3 048%	631,695	626,000	5,695	0 902%	8,630,376	8,380,377	249,999	2 897%
	Five Years	33,556,965	33,167,912	389,054	1 159%	10,828,863	10,531,434	297,428	2 747%	2,316,566	2,282,760	33,806	1 459%	46,702,395	45,982,107	720,288	1 542%

Aquila Networks - L&P
Loss and Unaccounted for Gas

		St. Joseph Light Power			
		Mcf Purchases	Billed Mcf Sales	Difference	Percent of Purchasing
September	2001	16,379	11,495	4,884	29.821%
October	2001	44,162	21,415	22,748	51.509%
November	2001	51,605	39,621	11,984	23.222%
December	2001	113,542	74,257	39,285	34.599%
January	2002	131,997	134,383	(2,386)	-1.808%
February	2002	104,502	115,610	(11,108)	-10.629%
March	2002	120,636	135,289	(14,653)	-12.146%
April	2002	48,686	82,646	(33,960)	-69.754%
May	2002	25,558	48,029	(22,471)	-87.923%
June	2002	18,270	22,667	(4,397)	-24.067%
July	2002	14,373	16,015	(1,642)	-11.424%
August	2002	14,637	13,335	1,302	8.893%
Total		720,347	714,762	5,585	**0.775%**

Aquila Networks - MPS
Test Year Ended December 31, 2002
Class Cost of Service Study
Summary of Cost of Service
Table 1

[A] Line No.	[B] Acct No.	[C] Description	[D] Total MPS $	[E] Residential $	[F] General Service $	[G] Large Volume $	[H] Small Volume Transportation $	[I] Large Volume Transportation $	[J] Basis of Allocation or Reference
1		Total Cost of Service							
2		Return Under Existing Rates	2,286,879	1,213,758	818,541	788	3,608	250,183	L 21 T 2
3		Rate Base	59,037,931	40,487,256	15,279,168	43,818	18,520	3,209,168	L 24 T 4
4		Proposed Rate of Return	9.74%	9.74%	9.74%	9.74%	9.74%	9.74%	
5		Return Under Proposed Rates	5,749,409	3,942,851	1,487,962	4,267	1,804	312,525	L 3 X L 4
6		Required Increase in Return	3,462,530	2,729,093	669,420	3,479	(1,805)	62,342	L 5 - L 2
7		Incremental Income Taxes							
8		State Tax							
9		Effective Tax Rate		6.25%	6.25%	6.25%	6.25%	6.25%	
10		Incremental Taxes	293,531	231,355	56,749	295	(153)	5,285	
11		Federal							
12		Effective Tax Rate		35.00%	35.00%	35.00%	35.00%	35.00%	
13		Incremental Taxes	1,863,900	1,469,087	360,353	1,873	(972)	33,559	
14		Required Revenue Increase	5,619,961	4,429,535	1,086,522	5,647	(2,929)	101,186	L 6 + L 10 + L 13
15		Sales Revenue Under Existing Rates	50,105,263	32,900,796	15,942,368	104,758	10,906	1,146,435	L 10 T 2
16		Total Cost of Service	55,725,224	37,330,331	17,028,891	110,405	7,976	1,247,622	L 14 + L 15
17		Proposed Increase - $	5,619,303	4,428,659		1,190,644			
18		Proposed Increase - %	11.21%	13.46%		6.92%			L 17 / L 15
19		Incremental							
20		State Tax	293,496	231,309		62,187			
21		Federal Tax	1,863,681	1,468,796		394,885			
22		Total Proposed Increase in Return	3,462,125	2,728,554		733,571			
23		Rate of Return Under Proposed Rates	9.74%	9.74%		9.74%			
24		Composite GS, LV, SVT, LVT							

Aquila Networks - MPS
Test Year Ended December 31, 2002
Class Cost of Service Study
Return Under Existing Rates
Table 2

[A] Line No.	[B] Acct No.	[C] Description	[D] Total MPS $	[E] Residential $	[F] General Service $	[G] Large Volume $	[H] Small Volume Transportation $	[I] Large Volume Transportation $	[J] Basis of Allocation or Reference
1		Return Under Existing Rates							
2		Rate Base							
3		Gas Plant in Service	92,877,786	63,474,956	23,543,952	52,591	32,152	5,774,124	L 44 T 3
4		Accumulated Depreciation	37,718,830	25,457,471	9,606,268	23,457	13,841	2,617,792	L 8 T 4
5		Net Plant in Service	55,158,956	38,017,485	13,937,683	29,134	18,321	3,156,332	L 3 - L 4
6		Other Rate Base Items	3,878,975	2,469,770	1,341,485	14,684	199	52,836	L 23 T 4
7		Total Rate Base	59,037,931	40,487,256	15,279,168	43,818	18,520	3,209,168	L 5 + L 6
8		Return Under Existing Rates							
9		Operating Revenues							
10		Sales and Transport. Revenues	50,105,263	32,900,796	15,942,368	104,758	10,906	1,146,435	L 3 T 5
11		Other Operating Revenues	1,130,121	864,842	219,155	451	282	45,391	L 7 T 8
12		Total Operating Revenues	51,235,384	33,765,638	16,161,523	105,209	11,188	1,191,826	L 10 + L 11
13		Net Gas Supply Expenses	32,589,129	21,161,298	11,340,451	96,668	414	(9,703)	L 9 + L 10 + L 11, T 6
14		Net Revenues	18,646,255	12,604,339	4,821,072	8,541	10,774	1,201,529	L 12 - L 13
15		Operating Revenue Deductions							
16		Operation and Maintenance	11,125,462	8,007,985	2,530,183	5,706	3,443	578,145	L 101 T 6
17		Depreciation Expense	3,348,971	2,326,068	839,368	1,677	1,074	178,784	L 8 T 7
18		Taxes Other Than Income Taxes	1,154,970	800,714	288,704	600	377	64,576	L 14 T 7
19		Income Taxes	729,973	253,815	344,278	(230)	2,270	129,842	L 26 T 5
20		Total Oper. Rev. Deductions	16,359,376	11,390,581	4,002,530	7,753	7,165	951,347	Sum of L 16 through L 19
21		Return Under Existing Rates	2,286,879	1,213,758	818,541	788	3,608	250,183	L 14 - L 20
22		Rate of Return	3.874%	2.998%	5.357%	1.799%	19.484%	7.796%	L 21 / L 7

Aquila Networks - MPS
Test Year Ended December 31, 2002
Class Cost of Service Study
Allocation of Plant in Service by Class
Table 3

[A] Line No.	[B] Acct No.	[C] Description	[D] Total MPS $	[E] Residential $	[F] General Service $	[G] Large Volume $	[H] Small Volume Transportation $	[I] Large Volume Transportation $	[J] Basis of Allocation or Reference
1		Gas Plant in Service							
2		Intangible Plant							
3	301	Land & Land Rights	1,840	1,313	435	1	1	90	Supervised O & M
4	302	Other Equipment	0	0	0	0	0	0	Supervised O & M
5		Total Intangible Plant	1,840	1,313	435	1	1	90	
6		Transmission Plant							
7	365	Land & Land Rights	234,575	116,889	62,367	446	195	54,677	50% Throughput, 50% Peak
8	366	Structures & Improvements	10,880	5,422	2,893	21	9	2,536	50% Throughput, 50% Peak
9	367	Mains	6,794,824	3,385,870	1,806,567	12,933	5,644	1,583,810	50% Throughput, 50% Peak
10	369	Measuring & Reg. Station Eq.	372,213	185,474	98,962	708	309	86,759	50% Throughput, 50% Peak
11	371	Other Equipment	0	0	0	0	0	0	50% Throughput, 50% Peak
12		Total Transmission Plant	7,412,492	3,693,655	1,970,789	14,109	6,157	1,727,782	Sum of L 7 through L 11
13		Distribution Plant							
14	374	Land & Land Rights	1,774	1,199	439	1	1	134	0.8% Throughput, 53.8% Services, 45.4% Peak
15	375	Structures & Improvements	59,033	39,903	14,601	35	21	4,472	0.8% Throughput, 53.8% Services, 45.4% Peak
16	376	Mains	42,982,588	29,054,008	10,630,857	25,838	15,539	3,256,345	0.8% Throughput, 53.8% Services, 45.4% Peak
17	377	Compressor Station Equipment	0	0	0	0	0	0	50% Throughput, 50% Peak
18	378	Meas. & Reg. Sta. Equip. - Gen	231,404	115,309	61,524	440	192	53,938	50% Throughput, 50% Peak
19	379	Meas. & Reg. Sta. Equip. - CG	418,109	208,344	111,164	796	347	97,457	50% Throughput, 50% Peak
20	380	Services	23,894,816	18,761,713	4,977,054	4,590	4,590	146,870	Services
21	381	Meters	2,868,819	1,707,805	1,132,604	836	836	26,738	Meters & Regulators
22	382	Meter Installations	3,602,987	2,144,855	1,422,453	1,049	1,049	33,581	Meters & Regulators
23	383	House Regulators	2,954,280	1,758,680	1,166,344	860	860	27,535	Meters & Regulators
24	384	House Regulator Installations	0	0	0	0	0	0	Meters & Regulators
25	385	Indust. Meas. & Reg. Sta. Equip	367,032	218,494	144,904	107	107	3,421	Meters & Regulators
26	386	Other Property on Cust. Premises	0	0	0	0	0	0	0.8% Throughput, 53.8% Services, 45.4% Peak
27	387	Other Equipment	0	0	0	0	0	0	0.8% Throughput, 53.8% Services, 45.4% Peak
28		Total Distribution Plant	77,380,842	54,010,311	19,661,944	34,553	23,543	3,650,491	Sum of L 14 through L 27
29		General Plant							
30	389	Land & Land Rights	31,183	22,260	7,372	15	9	1,527	Supervised O & M
31	390	Structure & Improvements	2,392,954	1,708,182	565,710	1,163	729	117,170	Supervised O & M
32	391	Office Furniture & Equipment	3,849,526	2,605,171	862,772	1,774	1,112	178,697	Supervised O & M
33	392	Transportation Equipment	374,461	267,305	88,525	182	114	18,335	Supervised O & M
34	393	Stores Equipment	11,082	7,911	2,620	5	3	543	Supervised O & M
35	394	Tools, Shop & Garage Equipment	581,302	414,956	137,424	283	177	28,463	Supervised O & M
36	396	Laboratory Equipment	139,396	99,508	32,954	68	42	6,825	Supervised O & M
37	396	Power Operated Equipment	106,688	76,158	25,222	52	32	5,224	Supervised O & M
38	397	Communication Equipment	730,105	521,177	172,602	355	222	35,749	Supervised O & M
39	398	Miscellaneous Equipment	65,915	47,053	15,583	32	20	3,227	Supervised O & M
40		Total General Plant	8,082,612	5,769,677	1,910,784	3,928	2,462	395,761	Sum of L 30 through L 39
41		Common Plant (1)	0	0	0	0	0	0	Supervised O & M
42		Total Plant in Service	92,877,786	63,474,956	23,543,952	52,591	32,162	5,774,124	L 5 + L 12 + L 28 + L 40 + L 41
43		Construction Work in Progress	0	0	0	0	0	0	L 42 T 3
44		Total Plant in Service	92,877,786	63,474,956	23,543,952	52,591	32,162	5,774,124	L 42 + L 43

(1) Common Plant has been included in General Plant by account

Aquila Networks - MPS
Test Year Ended December 31, 2002
Class Cost of Service Study
Allocation of Accumulated Depreciation and Other Rate Base Items by Class
Table 4

(A) Line No.	(B) Acct No.	(C) Description	(D) Total MPS $	(E) Residential $	(F) General Service $	(G) Large Volume $	(H) Small Volume Transportation $	(I) Large Volume Transportation $	(J) Basis of Allocation or Reference
1		Accumulated Depreciation							
2		Accumulated Depreciation							
3		Intangible	62	44	15	0	0	3	L 5 T 3
4		Transmission	4,492,867	2,238,802	1,194,536	8,552	3,732	1,047,245	L 12 - L 7 T 3
5		Distribution	31,486,599	21,977,045	8,000,535	14,060	9,580	1,485,380	L 26 - L 14 T 3
6		General & Common	1,739,302	1,241,580	411,163	845	530	85,184	L 40 T 3
7		Retirement Work in Progress	0	0	0	0	0	0	L 42 T 3
8		Total Accum Depreciation	37,718,830	25,457,471	9,606,269	23,457	13,841	2,617,792	Sum of L 3 through L 7
9		Net Plant	55,158,966	38,017,485	13,937,683	29,134	18,321	3,156,332	L 44 - L 8 , T3
10		Other Rate Base Items							
11		Cash Working Capital							
12		Gas Storage	3,563,080	2,314,057	1,234,890	14,314	0	0	Sales Allocator
13		Other	(572,143)	(408,418)	(135,258)	(278)	(174)	(28,015)	L 102 T 6
14		Materials & Supplies	1,607,139	1,098,358	407,400	910	557	99,914	L 42 T 3
15		Prepayments	3,394,668	2,339,724	857,772	1,793	1,128	194,251	L 9 T 4
16		Customer Adv for Construction	(43,040)	(29,093)	(10,645)	(26)	(16)	(3,261)	L 16 T 3
17		Customer Deposits	(150,000)	(101,950)	(37,502)	(16)	(16)	(516)	Customer Accounts Allocator
18		Accum Deferred Income Taxes - Depreciation	(4,645,543)	(3,201,871)	(1,173,846)	(2,454)	(1,543)	(265,828)	L 9 T 4
19		Accum Deferred Income Taxes - AAO	(497,998)	(336,821)	(123,170)	(299)	(180)	(37,728)	L 16 T 3
20		Accum. Deferred Income Taxes - Synergies to MPS	(68,917)	(47,500)	(17,414)	(36)	(23)	(3,944)	L 9 T 4
21		Unamortized Investment Tax Credit	(5,458)	(3,762)	(1,379)	(3)	(2)	(312)	L 9 T 4
22		AAO Gas Pipe Replacement	1,297,207	876,845	320,837	780	469	98,276	L 16 T 3
23		Total Other Rate Base	3,878,975	2,459,770	1,341,485	14,684	199	52,836	Sum of L 12 through L 22
24		Total Rate Base	59,037,931	40,487,256	15,279,168	43,818	18,520	3,209,168	L 9 + L 23

Aquila Networks - MPS
Test Year Ended December 31, 2002
Class Cost of Service Study
Return and Income Taxes Under Existing Rates
Table 5

[A] Line No.	[B] Acct No.	[C] Description	[D] Total MPS $	[E] Residential $	[F] General Service $	[G] Large Volume $	[H] Small Volume Transportation $	[I] Large Volume Transportation $	[J] Basis of Allocation or Reference
1		Return and Income Taxes Under Existing Rates							
2		Operating Revenues							
3		Sales and Transport Revenues	50,105,263	32,900,796	15,942,368	104,758	10,906	1,146,435	Direct to Class, Includes Trans Revenues
4		Other Operating Revenues	1,130,121	864,842	219,155	451	282	45,391	L T T B
5		Total Operating Revenues	51,235,384	33,765,638	16,161,523	105,209	11,188	1,191,826	L 3 + L 4
6		Gas Supply Expenses	32,589,129	21,161,298	11,340,451	96,868	414	(9,703)	L 12 , T 6
7		Net Revenues	18,646,255	12,604,339	4,821,072	8,341	10,774	1,201,529	L 5 - L 6
8		Operating Revenue Deductions							
9		Operation and Maintenance Exp	11,125,462	8,007,985	2,530,183	5,708	3,443	578,145	L 101 T 6
10		Depreciation Expense	3,348,971	2,328,088	839,368	1,677	1,074	178,784	L 8 T 7
11		Taxes Other Than Income Taxes	1,154,970	800,714	288,704	600	377	64,576	L 14 T 7
12		Total Operating Revenue Deductions	15,629,403	11,136,766	3,658,254	7,982	4,895	821,505	L 9 + L 10 + L 11
13		Net Operating Income (before tax)	3,016,852	1,467,573	1,162,817	558	5,879	380,024	L 7 - L 12
14		Interest Expense	2,133,631	1,463,209	552,189	1,584	669	115,979	Total 3.614% of Rate Base , L 24 T 4 to Class
15		Net Taxable Income	883,221	4,364	610,628	(1,025)	5,209	264,045	L 13 - L 14
16		Effective State Tax Rate		6.25%	6.25%	6.25%	6.25%	6.25%	
17		State Tax	55,201	273	38,164	(64)	326	16,503	L 15 X L 16
18		Net Tax Adjustment	(8,258)	(5,692)	(2,087)	(4)	(3)	(473)	L 9 T 4
19		Total State Tax	46,943	(5,419)	36,078	(68)	323	16,030	L 17 + L 18
20		Effective Federal Income Tax Rate		35.00%	35.00%	35.00%	35.00%	35.00%	
21		Federal Income Tax	309,127	1,527	213,720	(359)	1,823	92,416	L 15 X L 20
22		Net Tax Adjustment	(10,398)	(7,167)	(2,628)	(5)	(3)	(595)	L 9 T 4
23		Total Federal Income Tax	298,729	(5,640)	211,092	(364)	1,820	91,821	L 21 + L 22
24		Deferred Income Taxes	426,783	294,161	107,843	225	142	24,422	L 9 T 4
25		Investment Tax Credits	(42,492)	(29,287)	(10,737)	(22)	(14)	(2,431)	L 9 T 4
26		Total Income Tax	729,973	253,815	344,276	(230)	2,270	129,842	L 19 + L 23 + L 24 + L 25

Aquila Networks - MPS
Test Year Ended December 31, 2002
Class Cost of Service Study
Allocation of O&M Expenses by Class
Table 6
Page 1 of 2

[A] Line No.	[B] Acct No.	[C] Description	[D] Total MPS $	[E] Residential $	[F] General Service $	[G] Large Volume $	[H] Small Volume Transportation $	[I] Large Volume Transportation $	[J] Basis of Allocation or Reference
1		O & M Expenses							
2		Other Gas Supply Expenses							
3	803	Natural Gas Transmission Line Purchases							
4	804	NG City Gate Purchases							
5	805	Other Gas Purchases							
6	805.1	Purchased Gas Cost Adjustment							
7	807	Other Purchased Gas Expenses							
8	810	Gas Used for Compressor Station Fuel							
9		Subtotal Other Gas Supply Exp	32,620,219	21,175,166	11,347,850	96,754	449	0	Direct to Class
10	812	Gas Used for Other Util Oper	(31,372)	(13,993)	(7,456)	(87)	(35)	(9,791)	Throughput Allocator
11	813	Other Gas Supply Expenses	282	126	67	1	0	88	Throughput Allocator
12		Total Other Gas Supply Expenses	32,589,129	21,161,298	11,340,451	96,668	414	(9,703)	L 9 + L 10 + L 11
13		Total Production Expenses	32,589,129	21,161,298	11,340,451	96,668	414	(9,703)	L 12
14		Transmission Expenses							
15		Operation							
16	850	Supervision & Engineering	0	0	0	0	0	0	L 17 through 23
17	851	Sys Control & Load Dispatch	26,549	11,842	6,318	73	30	8,286	Throughput Allocator
18	852	Communication System Expenses	0						
19	853	Compressor Sta Labor & Exp	0						
20	854	Gas for Compressor Sta Fuel	0						
21	856	Mains Expenses	34,450	17,166	9,159	86	29	8,030	L 9 T 3
22	857	Meas & Reg Sta Expenses	0						
23	859	Other Expenses	24,589	12,253	6,538	47	20	5,731	L 12 T 3
24	860	Rents	750	374	199	1	1	175	L 12 T 3
25		Total Operation	86,338	41,635	22,215	187	79	22,222	Sum of L 16 through 24
26		Maintenance							
27	861	Supervision & Engineering	0						
28	862	Structures & Improvements	0	0	0	0	0	0	L 8 T 3
29	863	Mains	95,338	47,507	25,348	181	79	22,222	L 9 T 3
30	865	Meas & Reg Sta Equip	77	38	20	0	0	18	L 10 T 3
31	867	Other Equipment	0	0	0	0	0	0	L 11 T 3
32		Total Maintenance	95,415	47,545	25,368	182	79	22,240	Sum of L 27 through 31
33		Total Transmission Expenses	181,753	89,180	47,583	369	158	44,462	L 25 + L 32
34		Distribution Expenses							
35		Operation							
36	870	Supervision & Engineering	290,518	196,468	81,509	131	91	12,328	L 37 through 46
37	871	Load Dispatching	20,890	9,229	4,924	57	23	6,457	Throughput Allocator
38	872	Compressor Station Labor and Expenses	0	0	0	0	0	0	L 17 T 3
39	873	Compressor Station Fuel and Power	0	0	0	0	0	0	L 17 T 3
40	874	Mains & Services	475,442	339,929	110,959	218	143	24,194	L 16 T 3 and L 20 T 3
41	875	Meas & Reg Sta Equip - Gen	62,316	31,052	16,568	119	52	14,525	L 18 T 3
42	876	Meas & Reg Sta Equip - Ind	1,198	713	473	0	0	11	L 25 T 3
43	877	Meas & Reg Sta Equip - CG	10,868	5,415	2,890	21	9	2,533	L 19 T 3
44	878	Meter & House Regulators	559,018	332,783	220,699	163	163	5,210	L 21 T 3 to L 24 T 3
45	879	Customer Installation Expenses	245,861	193,045	51,210	47	47	1,511	L 20 T 3
46	880	Other Expenses	827,432	577,531	210,245	369	252	39,035	L 28 T 3
47	881	Rents	81,673	57,006	20,753	36	25	3,853	L 28 T 3
48		Total Operation	2,575,017	1,743,173	720,221	1,160	805	109,658	Sum of L 36 through 47

Aquila Networks - MPS
Test Year Ended December 31, 2002
Class Cost of Service Study
Allocation of O&M Expenses by Class
Table 6
Page 2 of 2

(A) Line No.	(B) Acct No.	(C) Description	(D) Total MPS $	(E) Residential $	(F) General Service $	(G) Large Volume $	(H) Small Volume Transportation $	(I) Large Volume Transportation $	(J) Basis of Allocation or Reference
49		Maintenance							
50	885	Supervision & Engineering	32,843	22,319	8,462	18	11	2,032	L 51 through 59
51	886	Structures & Improvements	6	4	1	0	0	0	L 15 T 3
52	887	Mains	492,158	332,673	121,725	296	178	37,286	L 16 T 3
53	888	Compressor Station Equipment	0	0	0	0	0	0	L 17 T 3
54	889	Meas. & Reg. Sta. Equip - Gen	43,480	21,666	11,560	83	36	10,135	L 18 T 3
55	890	Meas. & Reg. Sta. Equip - Ind	43,866	26,113	17,318	13	13	409	L 25 T 3
56	891	Meas. & Reg. Sta. Equip - CG	30,177	15,037	8,023	57	25	7,034	L 19 T 3
57	892	Services	207,247	182,726	43,158	40	40	1,274	L 20 T 3
58	893	Meters & House Regulators	67,069	39,926	26,479	20	20	625	L 21 T 3 to L 24 T 3
59	894	Other Equipment	141,606	98,838	35,981	63	43	6,680	L 26 T 3
60		Total Maintenance	1,058,452	719,304	272,718	590	366	65,475	Sum of L 50 through 59
61		Total Distribution	3,633,469	2,462,477	992,939	1,750	1,170	175,133	L 48 + L 60
62		Customer Accounts Expenses							
63	901	Supervision	38,239	33,637	4,462	4	4	132	L 64 + L 65 + L 67
64	902	Meter Reading Expenses	275,503	242,350	32,145	30	30	949	Customer Accounts Allocator
65	903	Customer Records & Collection	758,755	667,450	88,530	82	82	2,612	Customer Accounts Allocator
66	904	Uncollectible Accounts	850,686	748,318	99,256	92	92	2,929	Customer Accounts Allocator
67	905	Miscellaneous	2	2	0	0	0	0	Customer Accounts Allocator
68		Total Customer Accounts Expenses	1,923,185	1,691,757	224,392	207	207	6,622	Sum of L 63 through 67
69		Customer Service & Information Expenses							
70	907	Supervision	52,883	35,054	9,378	76	32	8,343	L 71 + L 72 + L 73
71	908	Customer Assistance	0	0	0	0	0	0	50% Customer Accts. and 50% Throughput
72	909	Information and Instruction	47,072	31,202	8,347	67	29	7,426	50% Customer Accts. and 50% Throughput
73	910	Miscellaneous	9,681	6,417	1,717	14	6	1,527	50% Customer Accts. and 50% Throughput
74		Total Cust. Service & Inf. Exp	109,636	72,673	19,442	157	67	17,297	Sum of L 70 through 73
75		Sales Expenses							
76	911	Supervision	8,346	5,532	1,480	12	5	1,317	L 77 + L 78 + L 79
77	912	Demonstrating & Selling	(200)	(133)	(35)	(0)	(0)	(32)	50% Customer Accts. and 50% Throughput
78	913	Advertising	8,347	5,533	1,480	12	5	1,317	50% Customer Accts. and 50% Throughput
79	916	Miscellaneous	21,188	14,045	3,757	30	13	3,343	50% Customer Accts. and 50% Throughput
80		Total Sales Expenses	37,681	24,977	6,682	54	23	5,945	Sum of L 76 through 79
81		Administrative & General Expenses							
82		Operation							
83	920	A & G Salaries	1,392,397	972,531	322,080	562	415	66,709	Supervised O & M
84		Regulatory Allowance	36,758	16,396	8,748	101	41	11,472	$0.005 per Mcf, Throughput Allocator
85	921	Office Supplies & Expenses	1,068,724	762,896	252,654	519	326	52,329	Supervised O & M
86	922	Transfers	(223,729)	(159,706)	(52,891)	(109)	(68)	(10,955)	Supervised O & M
87	923	Outside Services Employed	432,416	308,675	102,226	210	132	21,173	Supervised O & M
88	924	Property Insurance	0	0	0	0	0	0	L 9 T 4
89	925	Injuries & Damages	826,126	589,720	195,302	401	252	40,451	Supervised O & M
90	926	Employee Pensions & Benefits	1,365,728	974,909	322,867	664	416	66,872	Supervised O & M
91	927	Franchise Requirements	0	0	0	0	0	0	Supervised O & M
92	928	Regulatory Commission Expense	237,350	105,869	56,487	655	264	74,075	Throughput Allocator
93	929	Duplicate Charges	0	0	0	0	0	0	Supervised O & M
94	930.1	General Advertising	0	0	0	0	0	0	Supervised O & M
95	930.2	Miscellaneous	55,590	39,754	13,165	27	17	2,727	Supervised O & M
96	931	Rents	33,004	23,560	7,802	16	10	1,615	Supervised O & M
97		Total Operation	5,194,464	3,634,603	1,228,441	3,148	1,804	326,470	Sum of L 83 through 96
98	935	Maintenance of General Plant	45,274	32,318	10,703	22	14	2,217	L 40 T 3
99		Total A & G Expenses	5,239,738	3,666,921	1,239,144	3,170	1,817	328,687	L 97 + L 98
100		Total Operation & Maintenance	43,714,591	29,169,283	13,870,634	102,374	3,857	568,442	L 13 + L 33 + L 61 + L 68 + L 74 + L 80 + L 99
101		Excluding Other Gas Supply Exp	11,125,462	8,007,985	2,530,183	5,706	3,443	578,145	L 100 - L 12
102		Supervised O & M before General	4,952,815	3,535,366	1,170,631	2,407	1,509	242,502	(1)
103		Footnotes							
104		(1) L 33+ L 61 + L 68 + L 74 + L 80 - L 20 - L 24 - L 47 - L 66							

Aquila Networks - MPS
Test Year Ended December 31, 2002
Class Cost of Service Study
Allocation of Depreciation Expense and Other Taxes by Class
Table 7

[A] Line No.	[B] Acct No.	[C] Description	[D] Total MPS $	[E] Residential $	[F] General Service $	[G] Large Volume $	[H] Small Volume Transportation $	[I] Large Volume Transportation $	[J] Basis of Allocation or Reference
1		Depreciation Expense							
2		Transmission	100,801	50,229	26,800	192	84	23,496	L 12 T 3
3		Distribution Plant	2,476,805	1,728,761	629,339	1,106	754	116,845	L 28 T 3
4		General Plant	720,308	514,183	170,286	350	219	35,269	L 40 T 3
5		Common Plant	0	0	0	0	0	0	L 41 T 3
6		Amortization of Ltd Term Gas Plant	30,492	20,839	7,730	17	11	1,895	L 44 T 3
7		Amortization of Other Plant	20,565	14,055	5,213	12	7	1,279	L 44 T 3
8		Total Depreciation Expense	3,348,971	2,328,068	839,368	1,677	1,074	178,784	Sum of L 2 through 7
9		Taxes Other Than Income Taxes							
10		Ad Valorem (Property Taxes)	917,958	627,355	232,697	520	318	57,069	L 42 - L 5 T 3
11		Payroll Taxes	252,587	180,306	59,713	123	77	12,368	Supervised O & M
12		Miscellaneous Tax	(18,963)	(8,458)	(4,513)	(52)	(21)	(5,918)	Throughput Allocator
13		Sales/Use Tax	3,387	1,511	806	9	4	1,057	Throughput Allocator
14		Total Taxes Other	1,154,970	800,714	288,704	600	377	64,576	Sum of L 10 through 13

Aquila Networks - MPS
Test Year Ended December 31, 2002
Class Cost of Service Study
Allocation of Other Operating Revenues by Class
Table 8

[A] Line No.	[B] Acct No.	[C] Description	[D] Total MPS $	[E] Residential $	[F] General Service $	[G] Large Volume $	[H] Small Volume Transportation $	[I] Large Volume Transportation $	[J] Basis of Allocation or Reference
1		Other Operating Revenues							
2	487	Forfeited Discounts	203,097	203,097					Direct to Class
3	488	Miscellaneous Service Revenue	347,349	247,951	82,116	169	106	17,008	Supervised O&M
4	493	Rent from Gas Property	0	0	0	0	0	0	L 42 T 3
5	495	Other Gas Revenue	53,164	37,950	12,568	26	16	2,603	Supervised O&M
6		Special Contract Revenues	526,511	375,844	124,471	256	160	25,780	Supervised O&M
7		Total Other Operating Revenue	1,130,121	864,842	219,155	451	282	45,391	Sum of L 2 through 6

Aquila Networks - MPS
Test Year Ended December 31, 2002
Class Cost of Service Study
Allocation Factors
Table 9

[A] Line No.	[B] Acct No	[C] Description	[D] Total MPS	[E] Residential	[F] General Service	[G] Large Volume	[H] Small Volume Transportation	[I] Large Volume Transportation	[J] Basis of Allocation or Reference
1		Allocation Factors							
2		1 Throughput							
3		Annual Sales - Mcf	5,049,018	3,279,124	1,749,611	20,283	0	0	
4		Transportation - Mcf	2,302,548	0	0	0	8,176	2,294,372	
5		Throughput - Mcf	7,351,566	3,279,124	1,749,611	20,283	8,176	2,294,372	
6		Allocator	1 0000	0 4460	0 2380	0 0028	0 0011	0 3121	
7		2 Sales							
8		Annual Sales - Mcf	5,049,018	3,279,124	1,749,611	20,283	0	0	
9		Allocator	1 0000	0 6495	0 3465	0 0040	0 0000	0 0000	
10		3 Peak Day							
11		Load Factor		20 00%	20 00%	65 00%	50 00%	50 00%	
12		Peak Day - Mcf/day	81,589	44,920	23,967	85	45	12,572	
13		Allocator	1 0000	0 5506	0 2938	0 0010	0 0005	0 1541	
14		4 Services							
15		Number of Customers	46,334	40,878	5,422	1	1	32	
16		Weighting Factor		1	2	10	10	10	
17		Weighted Number of Customers	52,062	40,878	10,844	10	10	320	
18		Allocator	1 0000	0 7852	0 2083	0 0002	0 0002	0 0061	
19		5 Meters & Regulators							
20		Number of Customers	46,334	40,878	5,422	1	1	32	
21		Weighting Factor		1	5	20	20	20	
22		Weighted Number of Customers	68,668	40,878	27,110	20	20	640	
23		Allocator	1 0000	0 5953	0 3948	0 0003	0 0003	0 0093	
24		6 Customer Accounts							
25		Number of Bills	556,008	490,536	65,064	12	12	384	
26		Weighting Factor		1	1	5	5	5	
27		Weighted Number of Customers	557,640	490,536	65,064	60	60	1,920	
28		Allocator	1 0000	0 8797	0 1167	0 0001	0 0001	0 0034	
29		Use per Customer		80	323	20,283	8,176	71,699	

Aquila Networks - MPS
Test Year Ended December 31, 2002
Functionally Classified Cost of Service Study
Summary of Cost of Service
Table 1

[A] Line No	[B] Acct No.	[C] Description	[D] Total	[E]	[F]	[G] Transmission/Distribution	[H]	[I]	[J]	[K]	[L] Customer Accounting	[M]	[N]	[O]	[P]
				Commodity	Sales	Commodity	Peak	Customer	Services	Meters & Regulators	Meter Reading	Accounting	Other	Direct Assigned	Basis of Allocation or Reference
			$	$	$	$	$	$	$	$	$	$	$	$	
1	Total Cost of Service														
2		Return Under Existing Rates	2,286,878	(279,889)	53,117	(258,223)	(1,416,966)	(1,397,766)	(1,697,563)	(1,249,530)	(338,011)	(1,443,986)	(76,085)	10,391,783	L 21 T 2
3		Rate Base	59,037,931	143,790	3,563,060	2,094,843	14,832,047	15,123,354	15,429,811	8,868,130	332,285	776,015	74,798	0	L 24 T 4
4		Proposed Rate of Return		9.74%	9.74%	9.74%	9.74%	9.74%	9.74%	9.74%	9.74%	9.74%	9.74%	9.74%	
5		Return Under Proposed Rates	5,749,409	14,003	346,989	204,006	1,444,942	1,472,788	1,502,613	868,853	32,360	75,572	7,284	0	L 3 x L4
6		Required Increase in Return	3,462,530	293,892	293,871	462,230	3,861,908	2,870,554	3,200,176	1,918,383	370,370	1,519,558	83,369	(10,391,783)	L 5 - L2
7		Incremental Income Taxes													
8		State													
9		Effective Tax Rate		6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	
10		Incremental Taxes	283,531	24,914	24,913	39,185	240,918	243,347	271,290	162,626	31,398	128,818	7,067	(880,946)	
11		Federal													
12		Effective Tax Rate		35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	35.00%	
13		Incremental Taxes	1,863,900	158,204	158,193	248,821	1,529,816	1,545,236	1,722,874	1,032,677	199,373	817,987	44,878	(5,593,958)	
14		Required Revenue Increase	5,619,961	477,011	476,977	750,235	4,612,643	4,659,137	5,194,140	3,113,688	601,140	2,466,364	135,315	(16,866,689)	L 6 + L10 + L13
15		Sales Revenue Under Existing Rates	50,105,263	0	0	0	0	0	0	0	0	0	0	50,105,263	L 10 T 2
16		Total Cost of Service	55,725,224	477,011	476,977	750,235	4,612,643	4,659,137	5,194,140	3,113,688	601,140	2,466,364	135,315	33,238,574	L 14 + L15

Aquila Networks - MPS
Test Year Ended December 31, 2002
Return Under Existing Rates
Table 2

[A] Line No.	[B] Acct No.	[C] Description	[D] Total	[E] Commodity	[F] Sales	[G] Transmission/Distribution Commodity	[H] Transmission/Distribution Peak	[I] Transmission/Distribution Customer	[J] Services	[K] Meters & Regulators	[L] Customer Accounting Meter Reading	[M] Customer Accounting Accounting	[N] Other	[O] Direct Assigned	[P] Basis of Allocation or Reference
			$	$	$	$	$	$	$	$	$	$	$	$	
1		Return Under Existing Rates													
2		Rate Base													
3		Gas Plant in Service	92,877,786	201,802	0	4,657,496	24,914,902	24,436,063	25,557,827	11,236,753	466,347	1,299,521	104,973	0	L 44 T3
4		Accumulated Depreciation	37,718,830	43,418	0	2,579,399	10,618,812	9,697,767	10,080,822	4,295,981	100,334	279,513	22,585	0	L 8 T4
5		Net Plant in Service	55,158,956	158,385	0	2,078,097	14,296,090	14,738,296	15,476,905	6,942,773	366,013	1,020,009	82,388	0	L 3 - L4
6		Other Rate Base Items	3,878,975	(14,595)	3,563,060	16,746	335,957	385,057	(47,293)	(74,843)	(33,728)	(243,994)	(7,592)	0	L 23 T4
7		Total Rate Base	59,037,931	143,790	3,563,060	2,094,843	14,632,047	15,123,354	15,429,611	6,868,130	332,285	776,015	74,796	0	L 5 + L6
8		Return Under Existing Rates													
9		Operating Revenues													
10		Sales and Transport Revenues	50,105,263											50,105,263	
11		Other Operating Revenues	1,130,121	23,140	0	32,353	153,906	146,827	190,693	165,767	53,475	149,024	12,037	203,897	L 7 T8
12		Total Operating Revenues	51,235,384	23,140	0	32,353	153,906	146,827	190,693	165,767	53,475	149,024	12,037	50,309,360	L 10 + L11
13		Net Gas Supply Expenses	32,589,129	(31,090)	0	0	0	0	0	0	0	0	0	32,620,219	L 9 + L10 + L11 T6
14		Net Revenues	18,646,255	54,230	0	32,353	153,906	146,827	190,693	165,767	53,475	149,024	12,037	17,688,141	L 12 + L13
15		Operating Revenue Deductions													
16		Operation and Maintenance	11,125,462	521,685	0	347,227	1,687,991	1,593,209	2,085,451	1,763,665	572,129	2,445,100	126,784	0	L 101 T6
17		Depreciation Expense	3,348,971	19,091	0	99,516	819,589	868,564	927,046	448,439	41,807	116,508	9,411	0	L 8 T6
18		Taxes Other Than Income Taxes	1,154,870	(7,277)	0	54,848	288,184	281,468	304,561	156,244	19,178	53,447	4,317	0	L 14 T6
19		Income Taxes	729,973	(196,380)	(53,117)	(211,014)	(1,204,871)	(1,196,868)	(1,408,801)	(973,271)	(241,629)	(1,022,045)	(54,380)	7,296,358	L 26 T6
20		Total Oper. Rev. Deductions	16,358,376	334,120	(53,117)	290,576	1,570,873	1,544,394	1,888,257	1,415,298	391,486	1,593,010	86,122	7,296,358	Sum of L 16 through L 19
21		Return Under Existing Rates	2,286,879	(279,889)	53,117	(258,223)	(1,416,966)	(1,397,566)	(1,697,563)	(1,249,530)	(338,011)	(1,443,986)	(76,085)	10,391,783	L 14 - L20
22		Rate of Return	3.874%	-194.652%	1.491%	-12.327%	-9.684%	-9.242%	-11.002%	-18.193%	-101.723%	-186.077%	-101.723%	#DIV/0!	L 21 / L7